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Tradition and Transition - Extension Edu
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TRADITION & TRANSITION

EXTENSION EDUCATION FOR THE FARM UNIT IN A CHANGING SOCIETY

PREPARED BY FARM & RANCH MANAGEMENT CONSULTANTS LTD.

DECEMBER 1970

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T R A D I T I O N A N D T R A N S I T I O N

Extension Education For
The Farm Unit In
A Changing Society

A
Study
of
All
Agricultural Extension Services
In Alberta
With
NEW DIRECTIONS CHARTED TO 1980

Prepared
For
THE GOVERNMENT OF THE PROVINCE OF ALBERTA
By

FARM & RANCH MANAGEMENT CONSULTANTS LTD.
631-42nd Avenue S.E.
Calgary, Alberta, Canada

DECEMBER 1970

"Firstly I think it can be recognized that farming is unique among industries in Canada, and in many other countries, in that the balance of power in terms of knowledge and technique rests not with the practitioners but the administrators."

- Keith Ashwell,
"Farm Forum"
Edmonton Journal

ACKNOWLEDGEMENTS

During the two years that our study has been under preparation we have received considerable help and co-operation from many individuals and many organizations. Unfortunately, our indebtedness extends to too many individuals to thank each one by name.

The Alberta Department of Agriculture, at all levels, has been frank, open and accommodating in every possible way. Our thanks and appreciation are also extended to other provincial Departments of Agriculture across Canada and the Canada Department of Agriculture. Valuable assistance was also gained from our contacts with other government departments at the federal and provincial levels. We are also indebted to individuals in the Universities and Colleges in Alberta, other provinces and the United States for their time and assistance.

Agri-business firms, farm organizations and communications firms are also deserving of our thanks. We also extend our appreciation to other individuals who gave us their time and their views. And a special "thank you" to the individuals who gave us the 'grass roots' input to the study, the farm unit operators to whom we talked.

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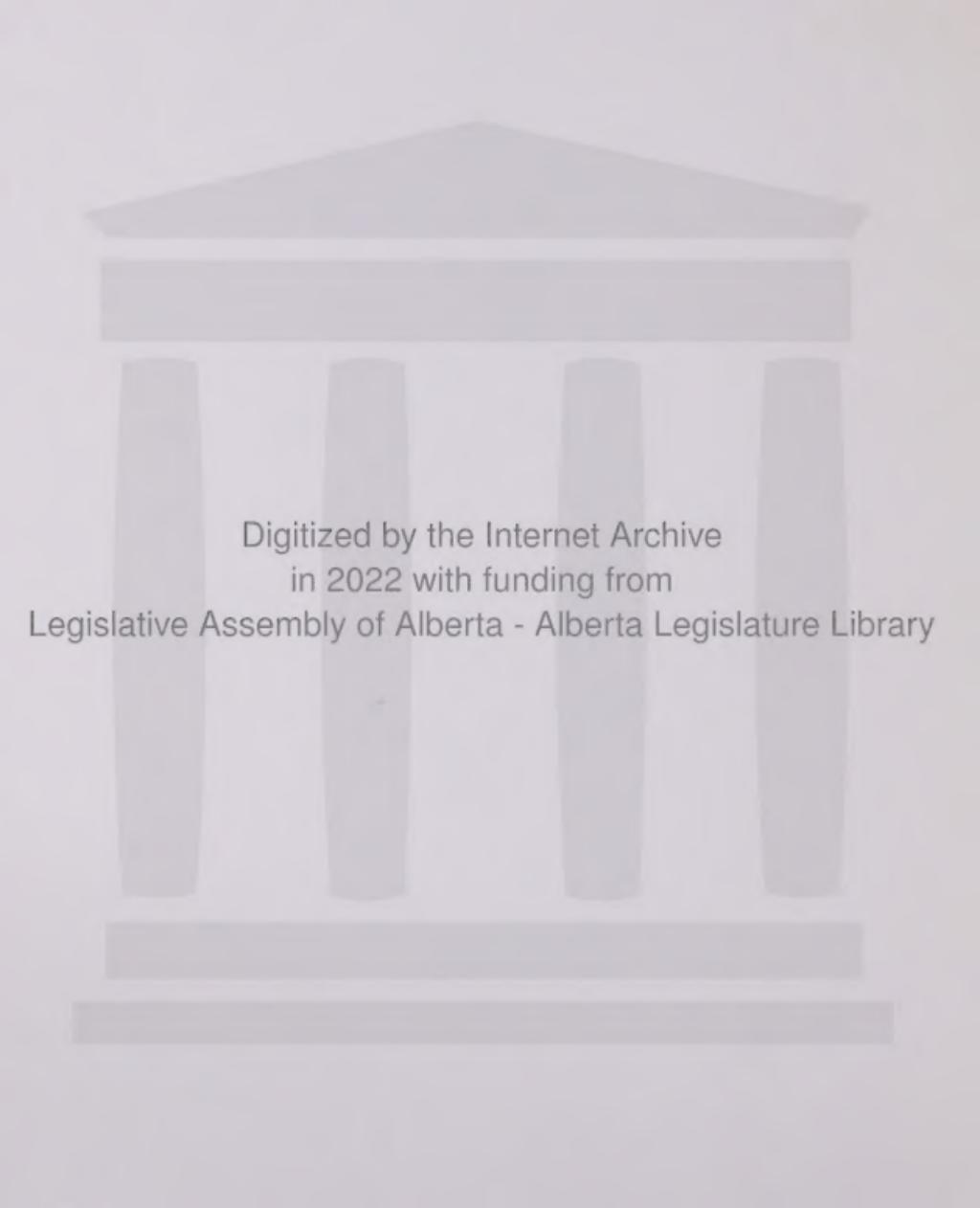
This is the overall study 'Table of Contents.' Each Chapter in the study has its own detailed 'Table of Contents', text, 'quick review', and charts. In this way, any Chapter can be referred to as a unit in itself. Chapters are numbered within themselves.

C H A P T E R S

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A GUIDE FOR QUICK READING

1. If time permits Chapter 1 "Introduction" and Chapter 2 "Philosophy" should be read completely. These Chapters are short. They tell why and how the study came into being. They give the background thinking of our study team that sets the stage for the following Chapters.
2. Chapter 3 is a selection of key ideas from the study. For ease of reference an extra set of charts is included at the end of Chapter 3.
3. Chapters 4 through 8 each have a "Quick Review of Essential Ideas" at the end of the Chapter.
4. Important charts are contained at the end of Chapters 4 through 8 and Chapter 10.
5. Chapter 10 on "Costs and Timing of Recommendations" should be read in its entirety with particular reference to Chart 10-1 which pulls everything together on a time scale spanning the next 10 years.

A faint, light-grey watermark of the Alberta Legislature building is visible in the background. The building features a prominent portico with four tall, fluted columns supporting a triangular pediment. The facade below the portico has several arched windows. The watermark is centered and serves as a watermark for the entire page.

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Chapter 1

INTRODUCTION

The need for this study was first brought to the Government's attention by the Alberta Institute of Agrologists. Subsequently, the February 9, 1967 Alberta Throne Speech contained the following passage:

"My Government will appoint a special committee to enquire into all phases of agricultural extension carried out by various government, education, industry and producer agencies, and to recommend such changes as may be deemed necessary, in order to integrate, co-ordinate and administer existing and future programs to best serve the interests of the farm people of Alberta."

From a detailed 'research blueprint' created from the Throne Speech passage by Farm & Ranch Management Consultants Ltd. this study came into being in November 1968. Graeme Kirstine, B.S.A., P.Ag. was appointed Study Liaison Director and Dr. Helgi Austman, P.Ag. became Special Advisor. Mr. Kirstine had retired as Manager of United Feeds Limited in January 1968. Dr. Austman was Director of the Extension Service of the Manitoba Department of Agriculture and Conservation when the study started, and is now Assistant Deputy Minister.

The Farm & Ranch Management Consultants Ltd. research team, which undertook and wrote the study, comprises:

S. Douglas Allen, B.Comm., M.B.A. - Project Leader.
Extension educator, consultant.

J. A. Lore, B.Sc., P.Ag.
Managerial farm unit operator, consultant.

A. W. James, B.Sc., M.A.
Mathematician, economist, educator, consultant.

C. L. Sibbald, B.Sc., P.Ag.
Agri-businessman, consultant.

J. K. Church, B.Sc., P.Ag.
Managerial farm unit operator, consultant.

Ten question areas were posed for study when the 'research blueprint' was first created. Subsequent research refined the ten. However they are still meaningful in original form.

1. What has been the historical pattern of development of extension services in Alberta provided by governments, educational institutions, industry, producers, and other agencies?
2. What have been the objectives of the programs established by these agencies and how effective have they been in meeting these objectives? How are different groups moving toward these objectives?
3. What are the needs of rural and urban people with respect to extension services? Are these needs being met? Any gaps? Any services that are not proving to be of sufficient value to warrant the cost?
4. Is there any overlap in extension services involving excess cost and efficiency? How should costs of programs be financed and what share, if any, should be assessed to individual citizens for services provided?
5. What should be the goals of extension services to meet both present and future needs?
6. What changes in objectives or programs offered by various groups should be suggested and how can these changes be effected and co-ordinated?

7. What administrative and organizational structures are ideally required to effectively carry out future extension programs?
8. What should be the future pattern of extension services in Alberta?
9. What should be the role of different groups such as government, university, commercial, community organizations and others in future extension programs?
10. What disciplines are required in extension personnel to meet needs of different programs?

The words 'extension services' or 'services' used in these ten questions are a short form of 'agricultural extension services'.

In addition to these question areas, the original 'research blueprint' contained the following definition of agricultural extension. It held up well as a starting point for interviews with people in agriculture.

"Agricultural extension is the effective dissemination of pertinent information to the farm population in a manner whereby the end recipient can judge the relevancy of the information and the objectivity of its source. However, dissemination is only part of the extension process, which process also includes education and conditioning. The fundamental objective of agricultural extension is the development of the skills and knowledge of farm and non-farm people involved in agriculture."

This definition includes a process ". . . effective dissemination of pertinent information . . ."; and an objective "development of the skills and knowledge" It sounds logical but rather impersonal. When our study team completed

over 200 person-to-person interviews in all walks of agricultural life, it was not impersonal. The definition as such waned in importance. Words in the definition dealing with communication among human beings increased in importance. For example:

"effective dissemination"
"pertinent information"
"relevancy of the information"
"objectivity of its source"
"education"
"conditioning"
"development of the skills and knowledge"

Thus an initial straightforward definition carried multiple significance. Consequently, the study could have escalated into an undertaking to solve all of the problems of agriculture, education, and communications plus problems of regional planning in Alberta. To be effective, the study had to be circumscribed. So the following bounds have been set:

- forecasts of Canadian agriculture in 1980 come from the work of others, mainly the Canada Department of Agriculture and the Federal Task Force on Agriculture.
- emphasis is placed on commercial agriculture with tentative suggestions on farm adjustment and regional development. The latter two lines of research are left 'open'. The magnitude of research along these lines requires separate major study.
- new Alberta agricultural extension structures are described in broad working outline. Detailed job descriptions require additional management studies.
- only obvious costs of alternative forms of extension are considered. A sizable audit staff would be required to prepare 'in depth' cost studies.

- research is dealt with in terms of the form the results are in when they reach the farm unit operator.
- sales promotion is divorced from extension wherever possible but the dividing line is quite arbitrary.
- regulation always has an extension aspect to it, in that the enforcer often tries to help the offender rather than 'lower the boom' immediately. However a cut-off has to be made somewhere and this type of extension is excluded.
- special programs and policies for minority groups involving race or religion are not attempted. This study is concerned with the agricultural industry and the education, skills, and experience required to stay viable in it, regardless of "race, color, or creed."
- in the U.S., agricultural extension has wandered into the metropolitan centres. It has become a part of urban poverty programs, garden clubs, and interior design groups. It has moved to a position where ultimate merger into 'general extension' seems inevitable. The needs of metropolitan dwellers in terms of agricultural extension are limited in this study to 'garden care.' The rest of the cultural, economic and social needs of city dwellers are left to the educational research currently underway in the Post-Secondary and Lifelong Task Forces of the Worth Commission. 'Garden care' can be dealt with in short order. All over North America it is being placed in the capable hands of city parks departments who assign a staff to handle the many requests.

In the course of this two-year study, the following categories of person-to-person interviews were covered. Space prevents a complete listing.

- farm units: 75 from the Peace River Country to the U.S. Border; the majority in the commercial category through meetings with Alberta Wheat Pool delegate advisory groups; some through the Alberta Department of Social Development.
- communications media: 9 in TV, film, telecommunications, computers, and publications.
- Farm Unions: officials in Unifarm and in the Farmers' Union and Co-operative Development Association plus firsthand participation in both of these organizations by farm operator members of our study team.
- Commodity Service Organizations such as the Alberta Potato Commission, Western Stock Growers Association, and Holstein-Friesian Association of Canada.
- Agri-Business: 67 people in fertilizer companies, banks, farm machinery, pharmaceuticals, feed, seed, petroleum, grain handling, food processing, and purchase co-operatives.
- Educational Institutions: 15 in 5 Provinces and 4 States.
- Canada Department of Agriculture: 4 Ottawa Branches and 3 Research Stations.
- Alberta Department of Agriculture: 40 planned interview occasions, singly and in groups, from the Assistant District Agriculturist or District Home Economist-in-Training through all levels to the Minister. Informal meetings were additional.
- Other Alberta Government: 10 pertinent departments and agencies with the key ones being Social Development, Municipal Affairs, and the Human Resources Development Authority.
- Other Provincial Governments: 3 Departments of Agriculture: Saskatchewan, Manitoba, Ontario.

The foregoing demonstrates the range and differences among organizations.

Briefs were requested of 52 organizations of which 16 responded. An extension library of just over 1,200 documents was accumulated. Conventions, conferences and courses were attended.

Chapter 2

PHILOSOPHY

One purpose of this section is to introduce and discuss four words: 'polarity'--'change'--'shock'--'time'. The other purpose is to present a challenge to the farm unit and to extension educators who would serve it.

Both purposes arise out of a philosophy which developed in our study team as research progressed. The philosophy is not new; we have merely done an Alberta extension adaptation of it. In international extension in developing countries there is a saying developed from an ancient Chinese proverb:

"Give a man a fish and he eats for a day.
Teach a man to fish and he eats for life."

Our Alberta extension adaptation is:

Individually counsel a farm unit operator on an occasional basis with information on a specific problem and only that problem may get solved. Teach the farm unit operator and his family the process of how to search for, obtain, assemble, and analyze information and they can solve a wide variety of problems for themselves for a lifetime.

The stress in this study is on people and how they can learn basic techniques of anticipating and eliminating problems. Such techniques can be used over and over again in many different types of situations. In an era of 'information explosion' these techniques are relevant. Extension field forces simply cannot be expanded or trained fast enough to cope with day-by-day problem solving for farm operators. The main technique is that of 'information search and analysis' by which is meant learning where data is, how to get it, and how to use it.

For such stress on self-use problem-solving techniques to be proper, there are two basic assumptions:

1. that the farm unit operator, his family, and his community must be prepared to use their own initiative to search for the answers to problems; and,
2. that the farm unit, community and region are dynamic organisms that have healthy roots in tradition but are capable of accepting and harnessing change.

If these seem self-evident, consider the first of the four words mentioned earlier: 'polarity.'

Two types of polarity exist in agricultural extension in Canada and in Alberta. One is based on occupation; the other on 'time centredness'. Occupational polarity causes farm union officials, agri-business representatives, university researchers, private consultants and government extension workers to view their own work and structures as being of paramount importance. This also reflects basic human nature. At this juncture readers will say that such self-centredness is wanting and will soon be a "thing of the past." Perhaps: but only if new approaches to extension in Alberta improve co-ordination among these types of extension people. Our study suggests new approaches. These approaches centre on one individual who sometimes tends to be forgotten and yet can bring all extension people together if they constantly keep his needs in the forefront: the farm unit operator (and his family)!

The other type of polarity is 'time centredness'. Clay Gilson states it well in the September/October 1970 Agricultural Institute of Canada "Review":

"One of the more sensitive and controversial areas of concern in agriculture involves a clash between those who cling tenaciously to the traditional virtues and values of rural society and those who would scrap the existing order.

The latter see nothing sacred in the family farm, the little red school house, the rural church or the close-knit rural community. They encourage the application of the latest technology and modern industrial techniques to agriculture without regard to the social costs involved or the loss of the traditional values of rural society. They have no nostalgic hang-ups on the changing character of the rural social landscape.

The former, the traditionalists, oppose the widespread and indiscriminate destruction of rural institutions and values. They find comfort and security in the old order. They doubt, indeed reject, many of the so-called virtues of modern industrial society: its crowding and pollution, and the stultifying effects of white collar, middle class suburbia. They do not want the values of modern, industrialized, urban society imposed on their rural community."

He goes on to point out that a farm policy based on traditionalism of the past is "politically and morally indefensible." Equally, a policy which ignores producer problems is "socially and morally reprehensible."

The foregoing is in terms of general agriculture. It also applies to extension. This polarity can only be solved by placing agriculture in 'the total picture'. We have attempted to fit the farm unit into a community, regional and national context. Also into a general business context. Also into a 'way of life' context..

In this study both types of polarity are reduced by providing new structures for co-operation. For example farm organizations could have a vital role to play in future extension. The role cannot be played within existing farm organization structures so new ones have been devised. Our structures are not absolute. They are built to be remodelled (taken apart and constructively put back together) by farm unit operators and other concerned people in agriculture.

The second word 'change' occurs daily with increasing frequency. The Ontario Farm Income report of January 1969 says that 'abundance' from improved production technology will challenge the farm to 'change'. It goes on in its 'philosophy' section to say:

"The challenge of change involves willingness to adapt ourselves, our attitudes and our institutions to new technology and conditions. All of which are coming at an accelerating rate. These changes should be guided."

The controversial Hall-Dennis report of June 1968 on "Aims and Objectives of Education in Ontario Schools" states in its 'philosophy' section:

"Needs and aspirations change, and this is especially true of our time. The condition of dynamic economic and cultural growth in which we now find ourselves demands that educational policy and practice be the result of expert long-term and short-term forecasts."

The Alberta Throne Speech, which was read in January, 1970 said:

"During the past year, my Government has been planning and preparing programs for the 1970's directed toward improvement of the environment wherein creativity and

freedom are broadened and strengthened, and where the opportunities, values, potentialities and liberties of individual Albertans remain the first concern and the major objective of public policy. The new decade will be one in which we accept the challenge of rapidly changing conditions. My Government is committed to social and economic innovations which will bring social advances to the people of Alberta.

In the decade ahead, my Government will be even more open to innovation, to reorganization, and to acting on both the problems and the opportunities of urbanization. Recognizing the need for improved citizen-government communication, measures will be undertaken to increase and expand communication channels. My Government appreciates the need to ensure a proper and healthy environment.

My Government will encourage increased participation in, and knowledge about, public affairs. My Government recognizes that our problems require the active efforts, the resourcefulness, and the ingenuity of the private sector."

The key words are "rapidly changing conditions", "innovations", "communication", "ingenuity of the private sector".

Change has been referred to in agricultural extension writings for some time. A man who states it well is Paul A. Miller of Michigan State University who, believe it or not, wrote this in 1959:

"Three terms dominate . . . conversation about . . . extension work. The first is change. The second is the future. The third is adjustment. . . . such terms . . . constitute only the surface symptoms."

"(First we have) a society no longer lacking in abundance of information and the media for its diffusion."

". . . the contemporary distraction which characterizes the Extension system . . . stems from the no-longer uniqueness of Extension as an agency for informational services. . . ."

"(Further there is) the decline in the usefulness of the concepts, rural and urban."

It is quite all right to talk about 'change' or 'adjustment' when it affects someone else. When it affects us, "it's scary as hell". If you believe the words of Alvin Toffler in a recent bestseller, 'change' in the sense of facing an unknown or uncertain future can cause profound 'shock'. The following four excerpts from his book "Future Shock" should be considered carefully by people who speak easily about 'farm adjustment'.

"Future shock will not be found in Index Medicus or in any listing of psychological abnormalities. Yet, unless intelligent steps are taken to combat it, millions of human beings will find themselves increasingly disoriented, progressively incompetent to deal rationally with their environments. The malaise, mass neurosis, irrationality, and free-floating already apparent in contemporary life are merely a foretaste of what may lie ahead unless we come to understand and treat this disease."

"Knowledge is change - and accelerating knowledge-acquisition, fueling the great engine of technology, means accelerating change."

"Here, then, is the first delicate point at which the accelerative thrust in the larger society crashes up against the ordinary daily experience of the contemporary individual. For the acceleration of change, as we shall show, shortens the duration of many situations. This not only drastically alters their "flavor", but hastens their passage through the experimental channel. Compared with life in a less rapidly changing society, more situations now flow through the channel in any

given interval of time - and this implies profound changes in human psychology."

"To survive, to avert what we have termed future shock, the individual must become infinitely more adaptable and capable than ever before. He must search out totally new ways to anchor himself, for all the old roots - religion, nation, community, family, or profession - are now shaking under the hurricane impact of the accelerative thrust. Before he can do so, however, he must understand in greater detail how the effects of acceleration penetrate his personal life, creep into his behavior and alter the quality of existence. He must, in other words, understand transience."

This last excerpt speaks quite well to what we consider is a future call upon farm operator initiative. It is also a future education obligation of extension people. Change in agriculture or the regional community could experience greater accelerative thrust than in the metropolitan community because the former are starting from further behind and may experience a greater degree of rationalization in reaching some future position.

One of Toffler's better suggestions for "cushioning future shock" is to undertake "consequence analysis" before technological or other policy and program changes are made. In agricultural terms, as an example, this could mean trying out new 'farm adjustment' programs in pilot areas before declaring the program to be officially operative in the Province or in Canada. If the consequences are bad in 'people terms', something else must be tried.

Toffler points out that we always talk about people in static terms. For example, "the farmer". He is thought of in terms of matter-of-factly performing daily occupational tasks.

Attention is paid to training him for new 'mixes' of tasks. Currently the 'mix' emphasis is on farm management and marketing know-how.

But there is another way to characterize "the farmer". On a "transcience index" he can be 'clocked' as to his rate of making and breaking relationships with people, places, organizations and information sources. On a "novelty index" he can be rated on his frequency of having to face 'first-time situations'. An example might be, his facing the proposed new beef grading system which will ultimately lead to 'producing for the market.'

'Time' is the fourth and final word to be discussed. Our study team talked to farm unit operators who talked about time in the following way:

"If I only had time to do my chores and take in all the farm management courses I should."

To which one of them responded:

"You have to make the time!"

Extension workers asked,

"Where is the time to implement changes in government policy, carry out random tasks sent out by head office, and meet the needs of my farmer clients with locally prepared programs?"

Peter Drucker, one of the leading business management authors, is blunt on the subject of use of time in his book "The Effective Executive":

"In any situation, 90 per cent of the events are caused by 10 per cent.

Now you just can't know that at slow speeds. Things have to be moving fast before you can

know that only 10 per cent of events cause anything.

All human beings have a built-in mechanism that stops them looking into that 10 per cent area. In all ages of mankind, they have always turned away from the causative area to the 'problem area' where things are supposed to be 'really happening' for practical guys to attend to. It is in this area where things only seem to be 'happening' that the executive who is above all 'the practical guy' spends his time. It is only here that he feels he is using knowledge pragmatically, that he will have something to show for his efforts. But he is merely solving problems, not eliminating or anticipating them.

The 90 per cent area is the completely dead area where nothing is causing and everything is caused by. It is the area of all committees and most management. It is the area of things that have to be solved day by day 'to keep the old wheels turning.' This area siphons off most of the talents, most of the brains, and most of the ability."

The foregoing ideas concerning meaningful use of time can be brushed aside by stating that "perhaps this applies to the city business executive but not to me as a farm operator" or as an extension agent. And yet--farm operators are managerial executives are they not? Many have far greater financial and operating responsibilities than city business executives. Extension services are adopting business administration school techniques such as M.B.O.: 'Management by Objectives.' Can the 'managerial process' of objectives, plans, resources, organization and control not be applied in agriculture to optimize use of time? The answer is, "Of course it can!"

The discussion of the four words brings us to our 'other purpose' in this 'Philosophy' Chapter. A challenge to be presented to the farm unit and to extension educators who would serve it.

A unique degree of courage and optimism allowed people in agriculture to overcome production problems and bring production technology to its present day state of advancement. One only has to read books like "When the Winds Came - How the Battle Against Soil Drifting Was Won on the Canadian Prairies" by Asael Palmer to understand the meaning of "true grit." Polarity disappears in agriculture in time of adversity, witness Palmer's passages on the soil drifting battle:

". . . farmers who made their contributions."

". . . there were men from industries, agricultural organizations . . . who served on advisory and task committees."

"The Universities of Saskatchewan and Alberta gave full support."

". . . federal experimental stations were assigned the emergency responsibility of combatting soil drifting and developing farming practices"

"All of the experimental farms and stations of the drought area contributed to the full of their resources."

". . . Deputy Minister of Agriculture of Alberta, and members of his staff made important consistent contributions."

"The agricultural departments of the three prairie provinces . . . united their efforts fully with the federal agencies in battle."

Today agriculture in Canada and in Alberta faces the twin problems of 'streamlining' from a competitive standpoint and 'adjustment' from a human standpoint. A fair amount of pessimism is rampant in regard to both problems. Production problems or conservation problems like soil drifting have been solved by innovative combined efforts. 'Streamlining' and 'adjustment' problems can also be solved! By initiative! By new approaches!

Chapter 3

KEY IDEAS FROM THE ENTIRE STUDY

Each of the following Chapters, with the exception of the short Chapter 9, and Chapter 10 which is a review of the entire study in terms of cost and timing of recommendations, has its own key idea section called "Quick Review of Essential Ideas." Our whole study is a unit. We feel that ultimately it must be read as such.

Thus we are reluctant to use the heading "Summary" for this Chapter. This Chapter is not a 'mini-extension study' which a complete summary must be. The following then are "key ideas from the entire study"; just that, nothing more.

PHILOSOPHY

There are four words critical to agriculture in Alberta in the next 10 years -- polarity, change, shock, and time.

1. Polarity is of two types: occupational (university researcher or government extension worker) and time centred (progressive vs. traditional farm units). For extension to be more effective in the future we need new organization structures to increase co-operation and reduce polarity.
2. Change is referred to in the Ontario Farm Income Report, the Hall-Dennis Report and the 1970 Alberta Throne Speech as the big factor to contend with in the '70's.
3. Shock is produced by change in the sense of facing an unknown or uncertain future. Technical and economic change is unavoidable. But we must anticipate the 'shock' effects and take steps in advance to 'cushion' them.
4. Time: "If I only had time to do my farm chores and take in all the farm management courses I should." Farm unit operators have to learn how to establish time priorities. Only 10 per cent of events are meaningful to long-term growth of the farm unit. But many operators like to spend

all of their time with the other 90 per cent where things are supposed to be 'really happening.' We need more research into and extension of managerial decision theory and practice.

THE FARM UNIT AND COMMUNICATIONS

1. In Alberta in 1980 we forecast, using Canada Department of Agriculture trend projection techniques, 50,836 farm units: a drop of 18,414 from 1966. There will be a further 14,543 farm units looking for Alberta Department of Agriculture assistance in order to 'emerge' into commercial agriculture.
2. The Federal Task Force on Agriculture has replaced the "family farm" with a "farm run by a family." This separates the production entity from "a way of life." We use 'regional' and 'metropolitan' in place of 'rural' and 'urban.' We stress 'farm unit' instead of 'farm' or 'farmer' or 'family farm.' Our farm unit can be managed by father, mother and sons; or by a professional foreman, wife, and 'top hands.' These changes in terminology reduce the emotionalism attached to agricultural and regional rationalization.
3. We accept two Task Force guidelines for future governmental policy:

". . . governments should reduce their direct involvement in agriculture thereby encouraging farmers, farm organizations and agri-business to . . . stand more self-sufficiently on their own."

". . . the government should intelligently assist an orderly and planned transition that will encourage agricultural adjustment to achieve the largest possible gains at the lowest possible tangible and intangible costs."

4. We have determined many farm unit characteristics and wants from previous 'farmer surveys' in Alberta and our own farm unit operator interviews. Here are a few key ones with our comments as to their applicability (in brackets). All apply to commercial farm units.

- (a) They have differing degrees of information seeking aggressiveness proportional to strength of financial position but not dependent on age, martial status, or amount of off-farm employment. (The range of candidates that can be reached for agricultural upgrading is wider than many would think, if we have adequate credit policies and extension counselling.)
- (b) They learn much from other farm unit operators producing the same commodity at the same or larger scale of operations and who may be located anywhere. (Communication in commercial agriculture is now by Region-wide and Province-wide 'commodity peer group' not "across fence lines in the local neighbourhood." Therefore, courses such as the Cattlemen's Short Course are becoming more relevant as opposed to District Extension Offices.
- (c) They are more concerned with a 'practicality gap' in regard to research information than they are about a 'credibility gap' concerning agri-business information. (We need more two-way communications flow between farm units and researchers. The Alberta Department of Agriculture (A.D.A.) need not duplicate agri-business information services to "keep the latter honest.")
- (d) Because they use many sources of information, the majority of commercial farm unit operators do not use the District Agriculturist service.

5. For purposes of extension, it is not sufficient to talk about just two classes of farm units: commercial and non-commercial. We have developed four main categories with nine sub-categories. Here they are.

Managerial Farm Units: top commercial
: regular commercial

Developing Farm Units: emerging
: adjusting out

Semi-commercial Farm Units: large-scale hobby
: large-scale part-time

Country Residents: static non-commercial
: small-scale hobby
: small-scale part-time

6. The extension counselling posture toward the four main categories of farm units will be as follows:

Managerial Farm Units: open up all data sources for access on farm unit initiative.

Developing Farm Units: intensive upgrading counselling
by the A.D.A. for the emerging
unit, and intensive social development/retraining counselling by the A.D.A. or the Department of Social Development or H.R.D.A. for the adjusting-out unit.

Semi-Commercial Farm Units: open up all data sources for access on farm unit initiative.

Country Residents: open up all data sources for access on farm unit initiative.

The A.D.A.'s extension job has been particularized to enable it to undertake the gigantic task of upgrading 14,543

emerging farm units to managerial status in the next 10 years. To undertake this task, we propose a Managerial Farm Development (M.F.D.) Program.

7. To assist the A.D.A. in emerging farm unit counselling and whichever government department counsels the adjusting out unit; and to assist information seeking by other farm units on their own initiative; we need an electronic communications network to complement face-to-face contact:
 - an audio-visual communications group (Appendix 6-1).
 - a data bank for print information (Chapter 5, Page 78 on).
 - an extension centre for lecture courses (Appendix 6-2).
8. The Extension Communications Group (E.C.G.) will turn out mass audience E.T.V. programs, group dialogue $\frac{1}{2}$ -inch videotape recordings, and ultimately video cartridges and cassettes for playback on the farm unit operator's own TV. Right now, it could produce audio cassettes and cartridges for playback in cars, trucks, and tractor cabs. The capital cost of a communications group is \$196,000. The annual operating cost is \$524,000. We recommend user charges to at least defray all costs.
9. The Alberta Data Bank (A.D.B.) will catalogue 10,000 documents per year with input and retrieval by computer. Access will be by routine or random request by anyone in Alberta. Method of access will be in-person, telephone tape-recorder, telex, teletype, remote computer terminal, telegram or letter. The annual operating cost is \$222,000 with no capital cost. We again recommend user charges.
10. The Alberta Extension Centre (A.E.C.) will be located at Olds with sub-extension centres at Vermilion, Fairview and Lethbridge. Cost to the A.D.A. for use of facilities

at these centres could amount to \$375,000 per year for 'emerging' farm unit courses and managerial farm unit 'awareness' courses for which the A.D.A. will 'pick up the tab.' This assumes that the Agricultural and Vocational Colleges will be phased out of A.D.A. jurisdiction. If such occurs, the reduction in A.D.A. annual operating budget will be \$1,983,000 per year.

11. The net decrease in annual operating cost of A.D.A. extension is:

E.C.G.	\$ 524,000
A.D.B.	222,000
A.E.C.	<u>375,000</u>
	\$1,121,000
A. and V. College reduction in A.D.A. budget	<u>1,983,000</u>
<u>DECREASE</u>	<u>\$ 862,000</u>

12. The net addition to Alberta Government expenditure is:

Cost of Extension Triumvirate	\$1,121,000
Revenue from 'user fees'	<u>845,000</u>
Net addition	<u>\$ 276,000</u>

ALBERTA DEPARTMENT OF AGRICULTURE

1. As the A.D.A.'s objective has broadened beyond production technology into management, marketing and a feeling that it has some human resource development responsibility, the A.D.A. extension field staff has been in a quandry as to role. Frustration has increased and with it the rate of staff turnover.
2. Extension field staff readily admit that most District Agriculturist (D.A.) and District Home Economist (D.H.E.) services only reach a portion of one of the nine categories of farm units: the regular commercial (Chart 4-1). This

is the category which D.A.'s and D.H.E.'s like to serve. Regular commercial farm units have enough managerial know-how and finances to implement extension suggestions.

3. The future extension job of A.D.A. extension field staff lies in the urgency of upgrading many thousands of emerging farm units. Here is a clear cut task. It will allow extension field workers to upgrade to 'specialists', form into Managerial Farm Development Groups, and receive recognition for an evident job of improving farm units in business management and production technology.
4. Before this change in emphasis can be implemented, the structure of A.D.A. and other government extension in the Province must change. On a Provincial level we see two structures (Chart 5-2): one for Regional Technology headed by the A.D.A. with other departments falling back to a resource input role; one for Regional Development headed by the A.D.A., or D.S.D., or H.R.D.A. Our choice is D.S.D. based on existing field worker interests. But 'grass roots' farm unit choice of government agency for farm adjustment programs also has to be determined.
5. The A.D.A. needs a broader advisory structure at Headquarters. By adding managerial farm unit, commodity commission, and agri-business personnel to the Alberta Agricultural Co-ordinating Committee (A.A.C.C.) we construct a Regional Extension and Research Advisory Council (Chart 5-3). It will be an active group meeting frequently. It will have Sub-Councils advising A.D.A. 'Extension Clinics' in each A.D.A. Region of the Province.
6. Consolidate all A.D.A. extension activities in the Extension Division (Chart 5-4 and 5-5). Move the Agricultural Economics Division and the Program Development Division into a Managerial Farm Development (M.F.D.) Program Secretariat.

The work of both is largely extension. It fits into the closely co-ordinated work to be performed by individuals and teams within the Extension Division for the mammoth job of emerging farm unit upgrading.

Some extension is always part of regulatory work. However, the obvious extension carried on by the Animal Industry and Plant Industry Divisions needs consolidating into the Extension Division. Thus, Specialists and Supervisors from the first two Divisions will transfer to Headquarters and to Regional clinics.

7. Streamline the Extension Division's structure (Charts 5-6 and 5-7). The Regional Agriculturists will report directly to the Director. D.A.'s, D.H.E.'s, Agricultural Engineers, Specialists and Supervisors will all report to the Regional Agriculturist. All will upgrade to 'specialist' rank. All will form into Managerial Farm Development (M.F.D.) Program Groups -- teams of specialists.

Present Regional Offices will become Regional Extension Clinics. The District Office structure will be phased out, first on a pilot basis in Southern Region 1 (Lethbridge). Some District Offices will always remain for reasons of remoteness. The Regional Extension Clinics will have program development and commensurate budget autonomy.

The Extension Division will be the extension operating arm of the A.D.A.'s Executive Committee. The Committee will meet more frequently and become assignment-centred. The Director of Extension will be responsible for carrying out priorities on 'top-down' government policy decisions agreed upon by the Committee. In turn the Committee must receive feedback on 'bottom-up' regional programming from the Director of Extension.

8. District Office phase-out will not begin until 1973 and then only in Region 1 (Chart 5-7). Lethbridge is ideally suited as the pilot program centre as the Southern Region has: good agri-business/farm unit rapport in contract crops; a strong agricultural course program at Lethbridge Community College; and frequent dialogue established among farm units and C.D.A. Research Station people. This is the right climate for putting managerial farm units on their own information-seeking initiative and leaving the field clear for the M.F.D. Group to work with emerging units. Between 1975 and 1980, the other A.D.A. Regions will set up Extension Clinics and drop most of their District Offices (Chart 5-8).
9. During the period to 1975, face-to-face contact at the District Office level will continue in Southern Region 1 as personnel are upgraded to 'specialists' and formed into the M.F.D. Group. We want face-to-face contact while the Extension Triumvirate is developing. In effect, face-to-face and electronic communications must 'run parallel' before the former is de-emphasized for managerial farm units and increasingly-emphasized for emerging units (during a 3-year training period for the latter).
10. The Alberta Data Bank and the Extension Communications Group will be the responsibility of the A.D.A. (Chart 5-8). The first will be on A.D.A. premises; the second on the University of Alberta campus for the atmosphere and use of E.C.G. labs in communications teaching and research. The A.D.B. and E.C.G. will be run by government or contracted out under 'Request for Proposals' (R.F.P.) to experts in each of the fields.

The Alberta Extension Centres will come under the jurisdiction of the Alberta Colleges Commission with agricultural course input coming from the A.D.A. and others.

11. Finally, there is an important philosophy to be enunciated in future farm unit extension by government in Alberta. No one, not the D.A., the D.H.E., the development officer nor any senior department official nor any politician will decide which farm units upgrade and which adjust out. Any farm unit can participate in either program: the M.F.D. Program for emerging units; or the R.D. Program for those adjusting out. Or the farm unit can choose to do neither. The individual will determine his own course.

UNIVERSITY AND COLLEGE EXTENSION

1. Farm unit operators are concerned about a 'practicality' gap in the use of university research information extended to them. They also lack easy access to researchers and lecturers.
2. We need revitalized lines of communication between the A.D.A. and the University of Alberta.
3. Agricultural and Vocational Colleges have a 'mixed' image and their potential is not fully utilized.
4. To achieve Points #1 and 2 above we recommend:
 - (a) A.D.A./University joint appointees (Chart 6-4) who would have salaries paid by the A.D.A. but utilize office and other facilities provided by the University. They would be Managerial Farm Development (M.F.D.) and Resource Development Program (R.D.P.) specialists. Joint appointees would spend 50 per cent of their time over a 3-year rotational period learning of new research and transmitting farm unit feedback to researchers. The other 50 per cent would be spent upgrading their fellow specialists.
5. The University of Alberta will host the Extension Communications Group (Chart 6-4) and will use E.C.G. facilities along with farm units, the A.D.A., farm organizations,

agri-business, and other universities and colleges. The E.C.G. will provide a new structure for co-operation and interaction as all of these people and organizations interact around its core of the best professional communicators in Canada. (They do not need agricultural backgrounds -- everyone else will supply that input.)

6. Location of the E.C.G. 'on campus' will stimulate development of a Department of Extension Communications. Training in communications theory and practice is presently lacking in agricultural and other programs at the undergraduate and graduate levels. Further, extension field worker upgrading needs this input.
7. The Alberta Agricultural Research Trust (A.A.R.T.) will be broadened to encompass more varied types of research. It will also encourage access to research funds by any innovative public or private research organization in keeping with full-costing principles. Its Board will be broadened.
8. We feel that the Agricultural and Vocational Colleges must clarify their objectives. We propose that Olds concentrate on 'Ag Technician' and agricultural certificate programs. Its facilities should be placed under the control of Red Deer College as part of a total regional education effort. It can then concentrate on becoming the main Alberta Extension Centre for agricultural and regional adult education. It would complement the Banff School's metropolitan-emphasis. Vermilion would become a community college with agricultural and extension centre offerings because its geographic isolation is unique. Fairview should remain as an agricultural college as its present form is relevant to its Region. However, it should be 'autonomous.' All of

these Colleges would be under the jurisdiction of the Colleges Commission. Lethbridge Community College has an excellent and growing School of Agricultural Education. Under new administration, the former College facilities plus Lethbridge will host Extension Centres (Chart 6-6).

FARM ORGANIZATION EXTENSION

1. If a farm union could be restructured in a manner to improve funding, encompass many different farm unit and commodity group views, and utilize lay worker potential in locals. It could then assist over the next 10 years in motivating emerging farm units to go on Managerial Farm Development Programs and adjusting-out units to go on Resource Development Programs.
2. So we restructured Unifarm (Chart 7-2) to encompass membership of commodity commissions (Chart 7-3) and a Small Farm Unit Section.
3. Under this new structure, Unifarm would operate an Information Clearinghouse for commodity organization members. It would contract with the Alberta Data Bank on a 'bulk data retainer' fee basis and then proceed to do analysis.
4. Under a 'Request for Proposals', Unifarm would contract with the A.D.A. to handle the awareness-sensitization-motivation program for the M.F.D. Program (Chart 7-4).
5. The F.U. & C.D.A. would handle the foregoing process for the adjusting-out farm unit, also under paid contract (Chart 7-4).

AGRI-BUSINESS EXTENSION

1. If agri-business can co-ordinate extension efforts within and among commodity groups, it can contribute a sizeable extension input in latent expertise alone. It can contribute not in spite of, but rather because of its profit motivation -- long-term profit made possible by its customers showing profits.

2. Agri-business extension efforts will be directed to managerial farm units. Agri-business also has a stake in helping the A.D.A. upgrade emerging farm units to managerial farm unit status (Chart 8-2).
3. We suggest a co-ordinating structure for Agri-business Commodity Associations. The aim is to elect representatives to an Agri-business Extension Co-ordinating Agency which among other duties elects representatives to the Regional Extension and Research Advisory Council of the A.D.A. (Chart 8-3).
4. When agri-business co-ordinates its efforts, it can
 - assist the A.D.A.'s Managerial Farm Development (M.F.D.) program by supplying lecturing manpower;
 - supply non-competitive information to the Alberta Data Bank (A.D.B.);
 - contribute communications expertise to the Extension Communications Group (E.C.G.);
 - defend the image of agriculture on pollution and conservation issues;
 - help to retrain adjusting-out farm unit operators under the Resource Development Program (R.D.P.); and,
 - fund industry Research and Extension Foundations which can contract for non-partisan, non-competitive information collection, analysis and dissemination.
5. An individual agri-business firm could form an internal Extension and Research Liaison Group. This Group would contract with public agencies and institutions such as the Extension Triumvirate or private research and consulting organizations, or do internal work on gathering, analyzing and disseminating information as part of the firm's extension

program. A firm could fund such work directly or contribute to an Agri-business Commodity Association Research and Extension Foundation which in turn would let contracts (Chart 8-4).

CANADA DEPARTMENT OF AGRICULTURE

We suggest that the C.D.A. operate a Canada Data Bank to which all provinces could tie-in to obtain a master library tape of Canada-wide and world-wide data for their own data banks.

TIMING

For timing of all of these recommendations, please see our Chart 10-1 at the end of Chapter 10.

CHART 4-1

Types of Farm Units Seeking Information: 1970, 1975, 1980

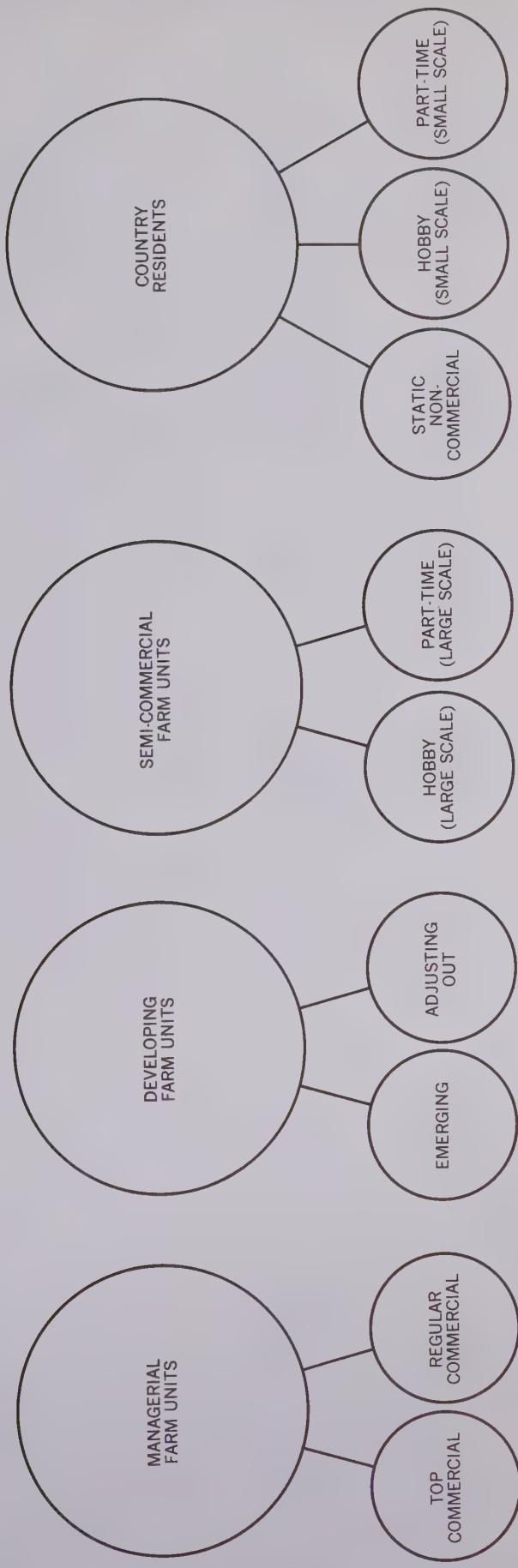
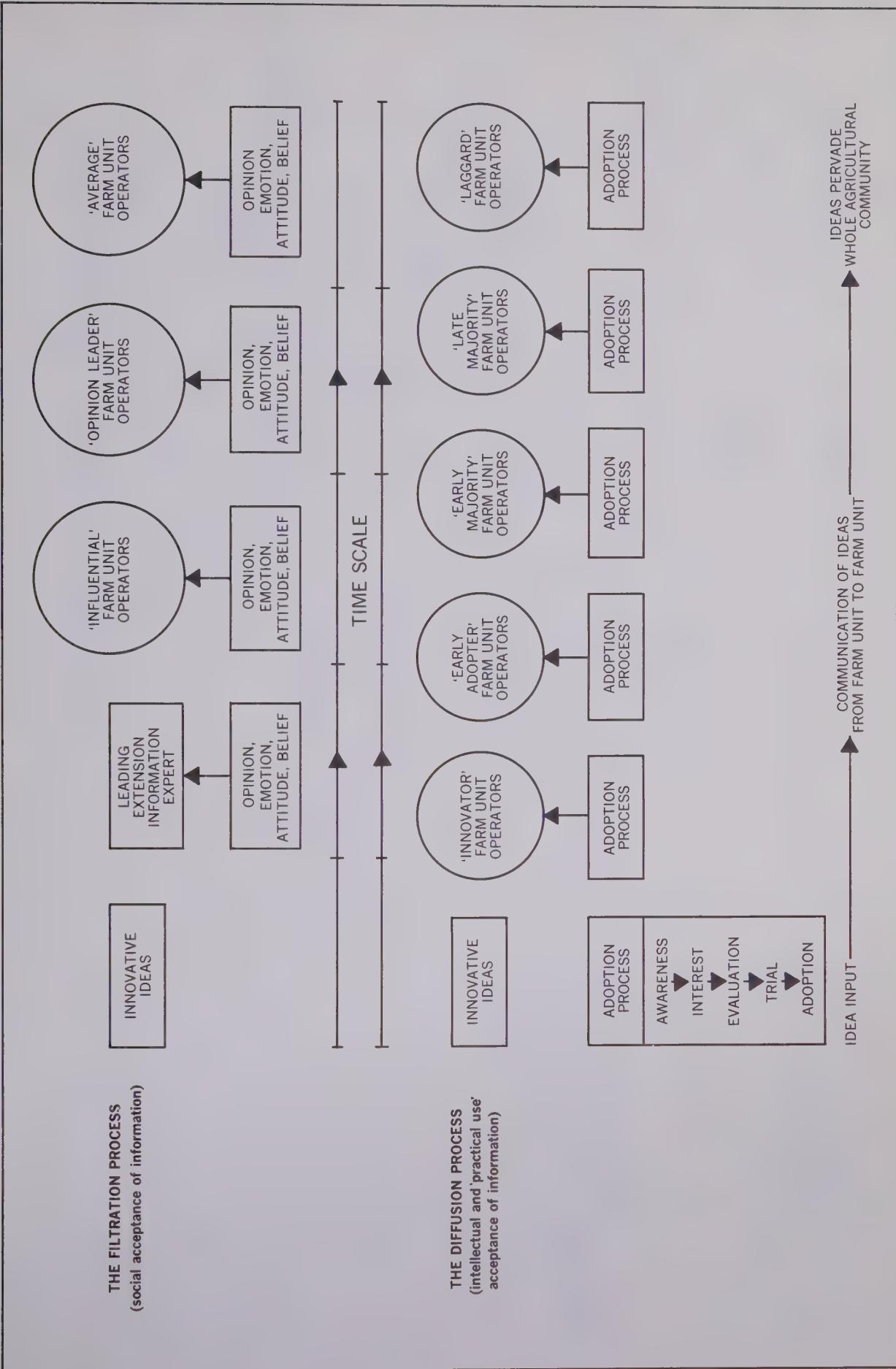
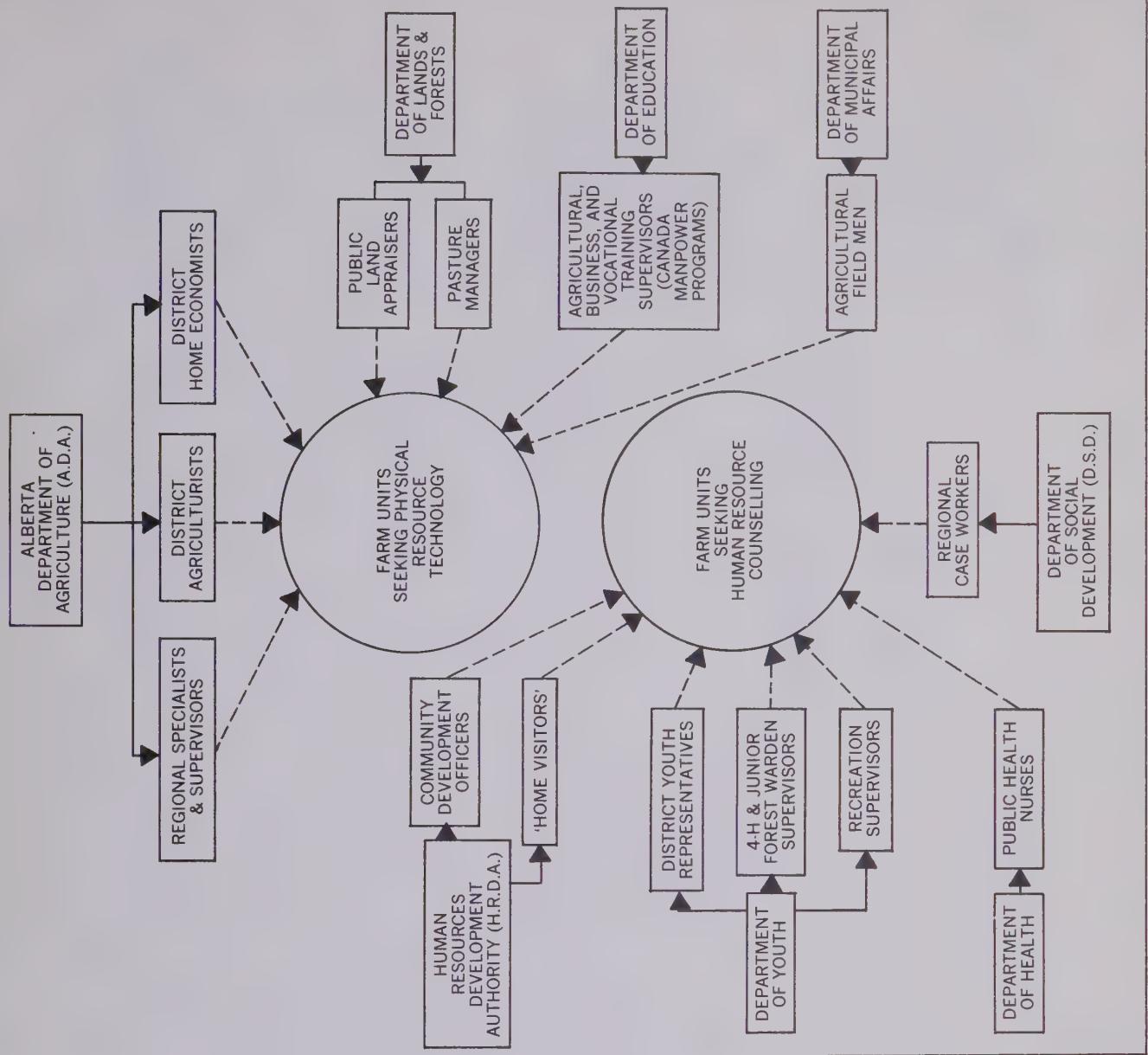


CHART 4-2

Communication Theory in Commercial Agriculture: 1970





Alberta Government
Departments Counselling
Farm Units: 1970

KEY
 Lines of Authority & Responsibility

 ▶--- Counselling Lines

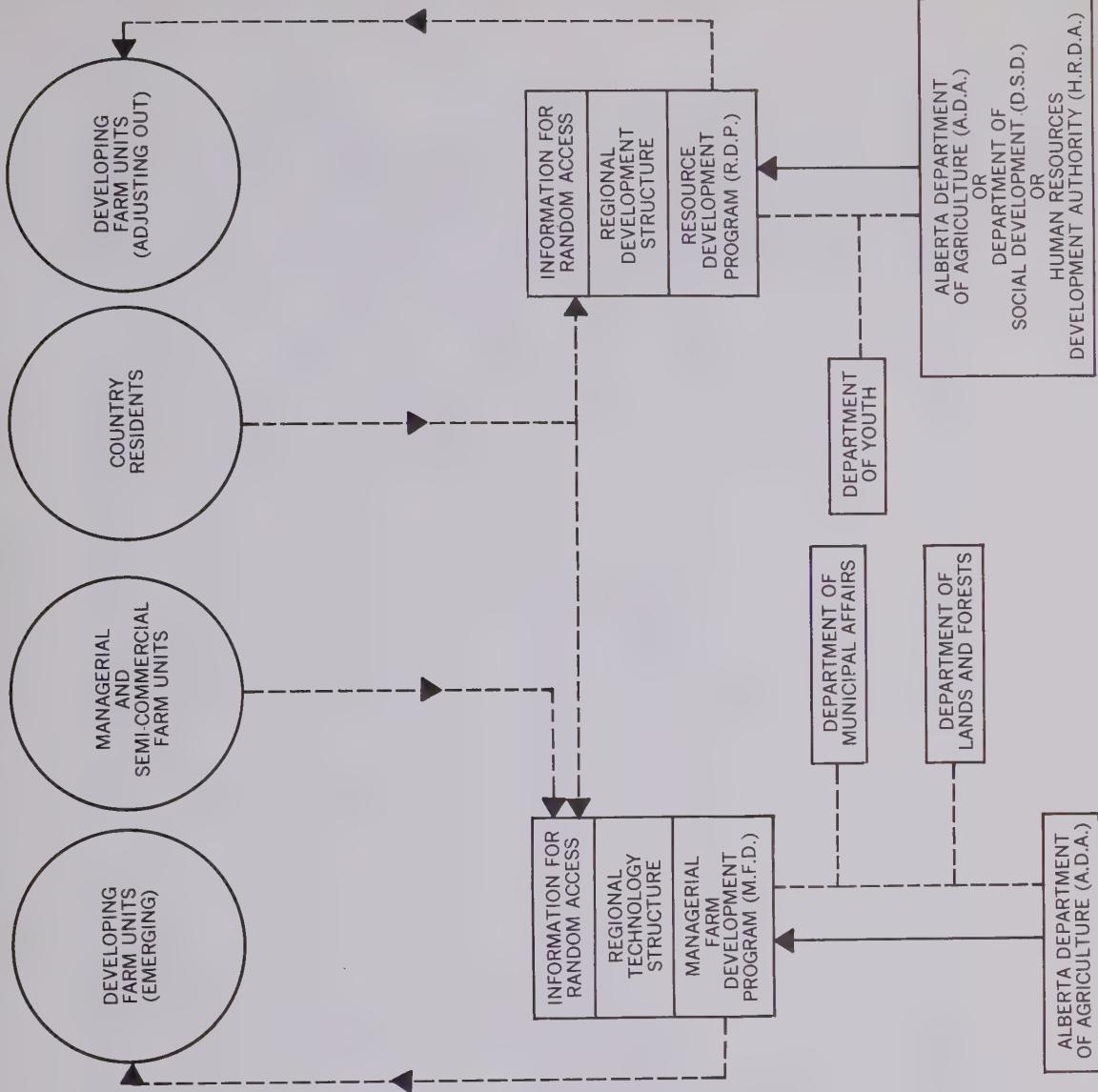
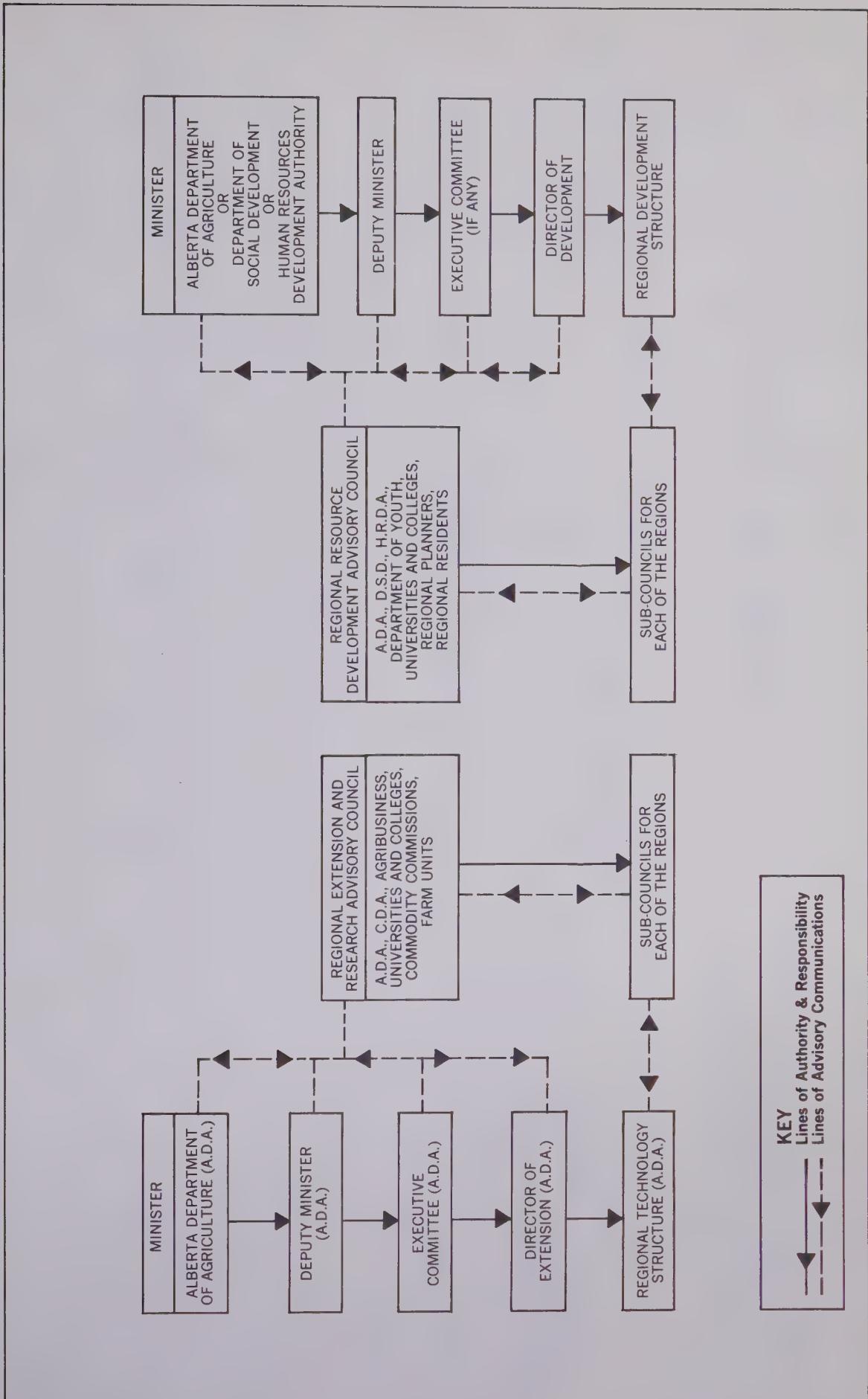


CHART 5-2
Alberta Government
Departments Counselling
Farm Units 1975, 1980

KEY
 — Lines of Authority and Responsibility
 - - - Lines of Counselling Initiative
 ▶ Lines of Advisory Input

CHART 5-3

Future Advisory Structure of Alberta Extension 1975, 1980.



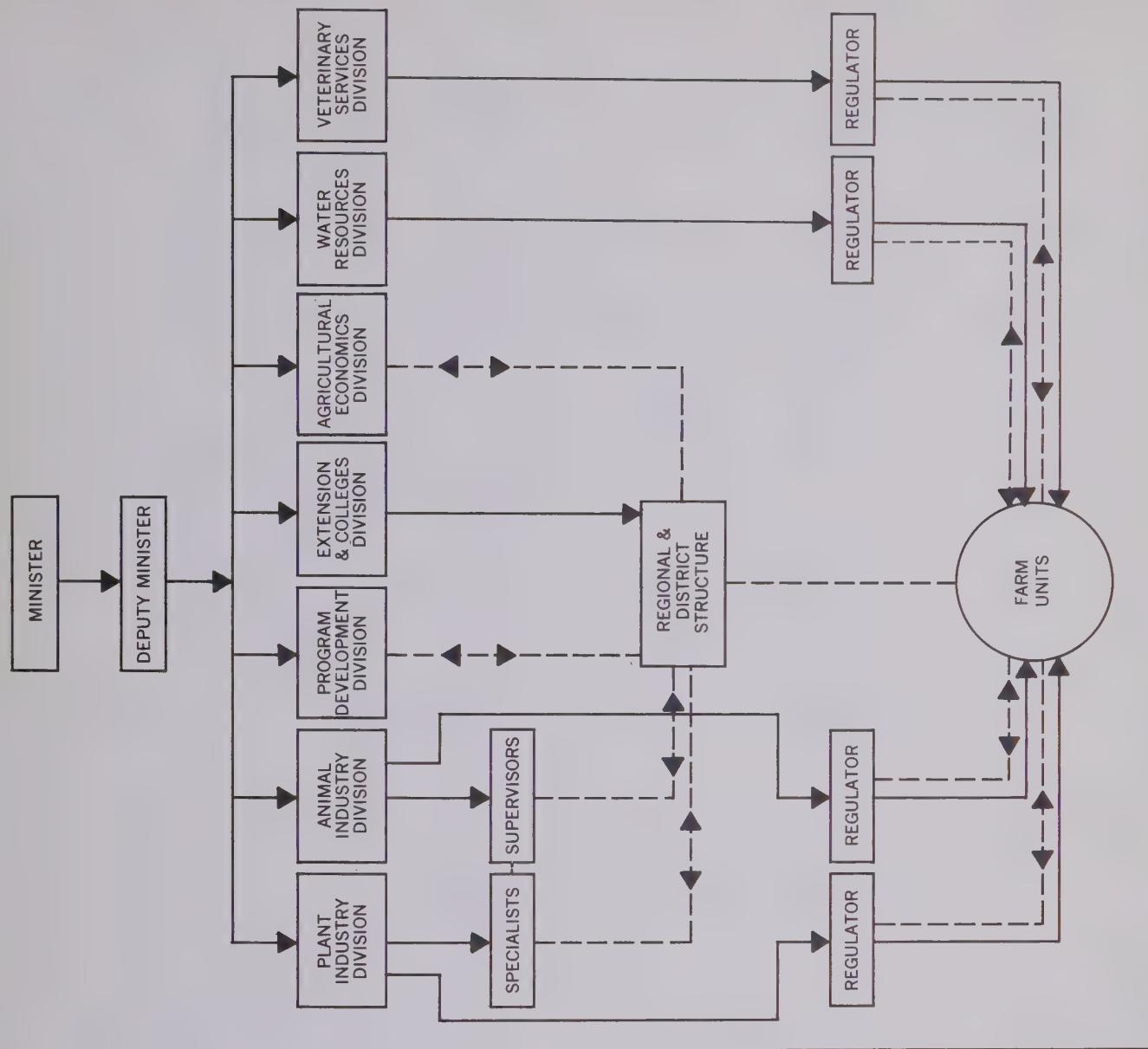
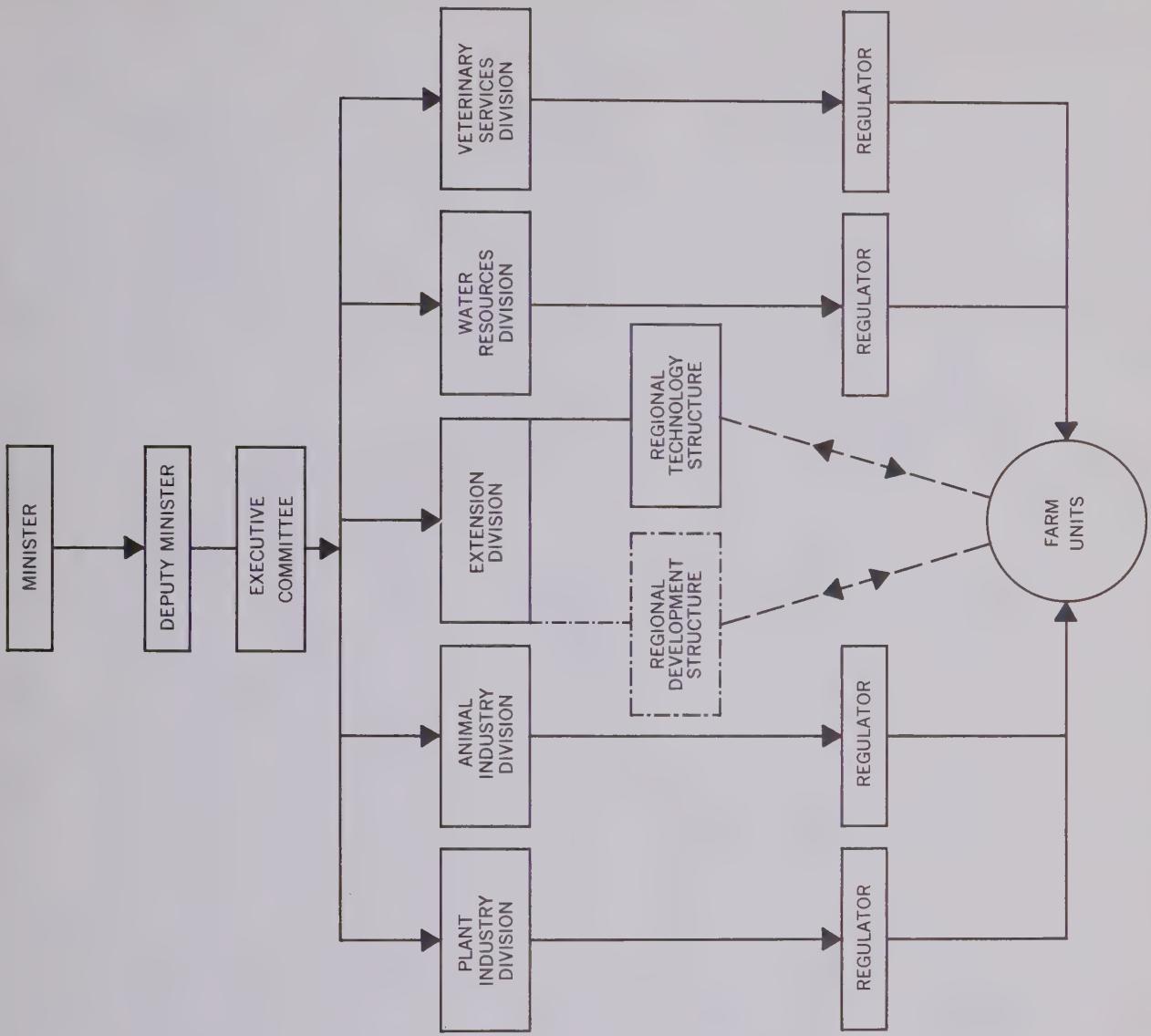


CHART 5-4
Present Alberta
Department of Agriculture
Internal Structure: 1970

KEY
 Lines of Authority & Responsibility
 Lines of Extension Information Flow

CHART 5-5
Future Alberta
Department of Agriculture
Internal Structure:
1975, 1980



KEY
 Lines of Authority & Responsibility
 Provisional — Depends on
 Which Government Department
 Gets a Mandate
 Lines of Extension Information Flow

Present Extension and Colleges Division Structure: 1970

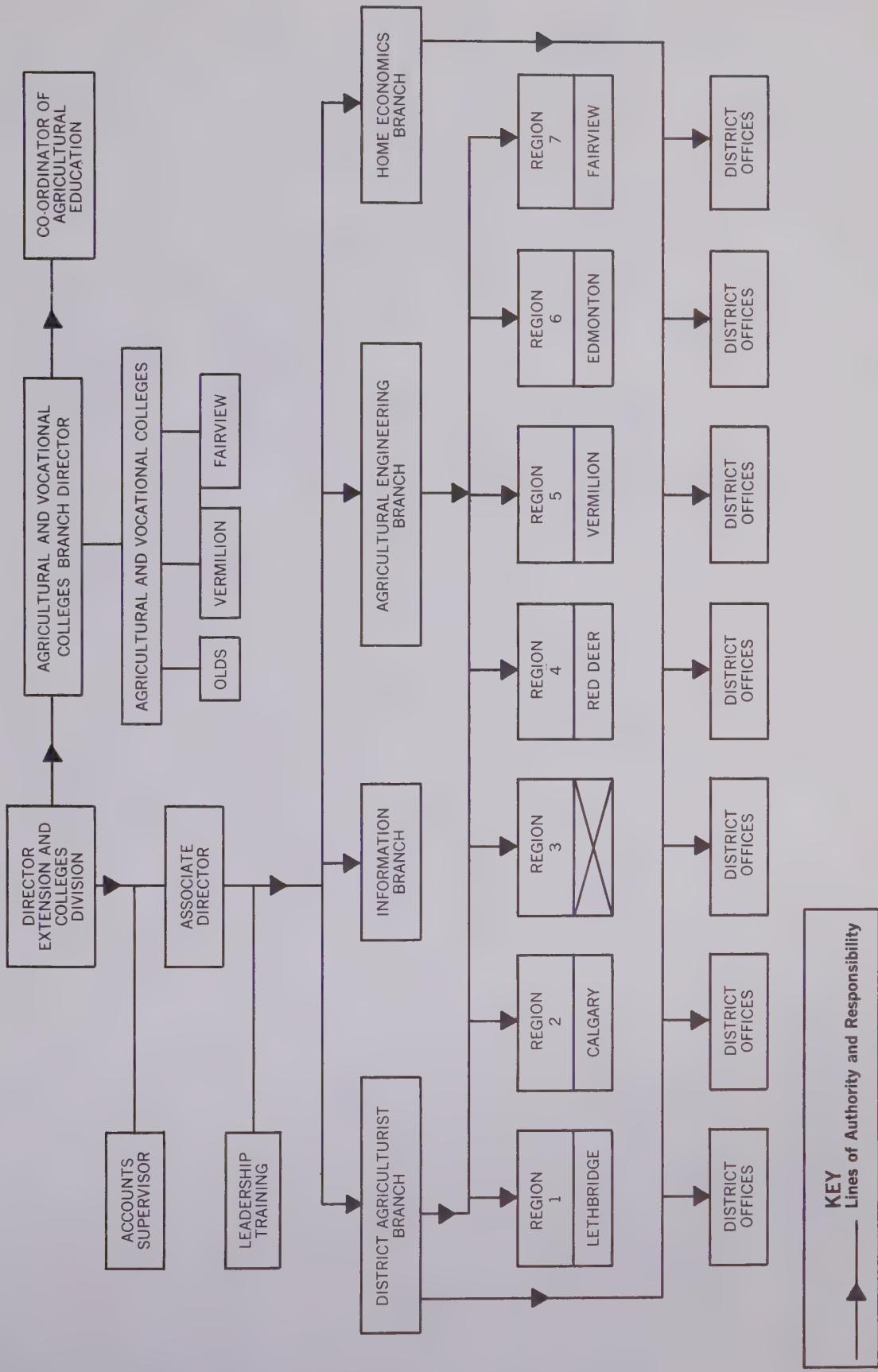


CHART 5-7

Future Extension Division Structure: 1975

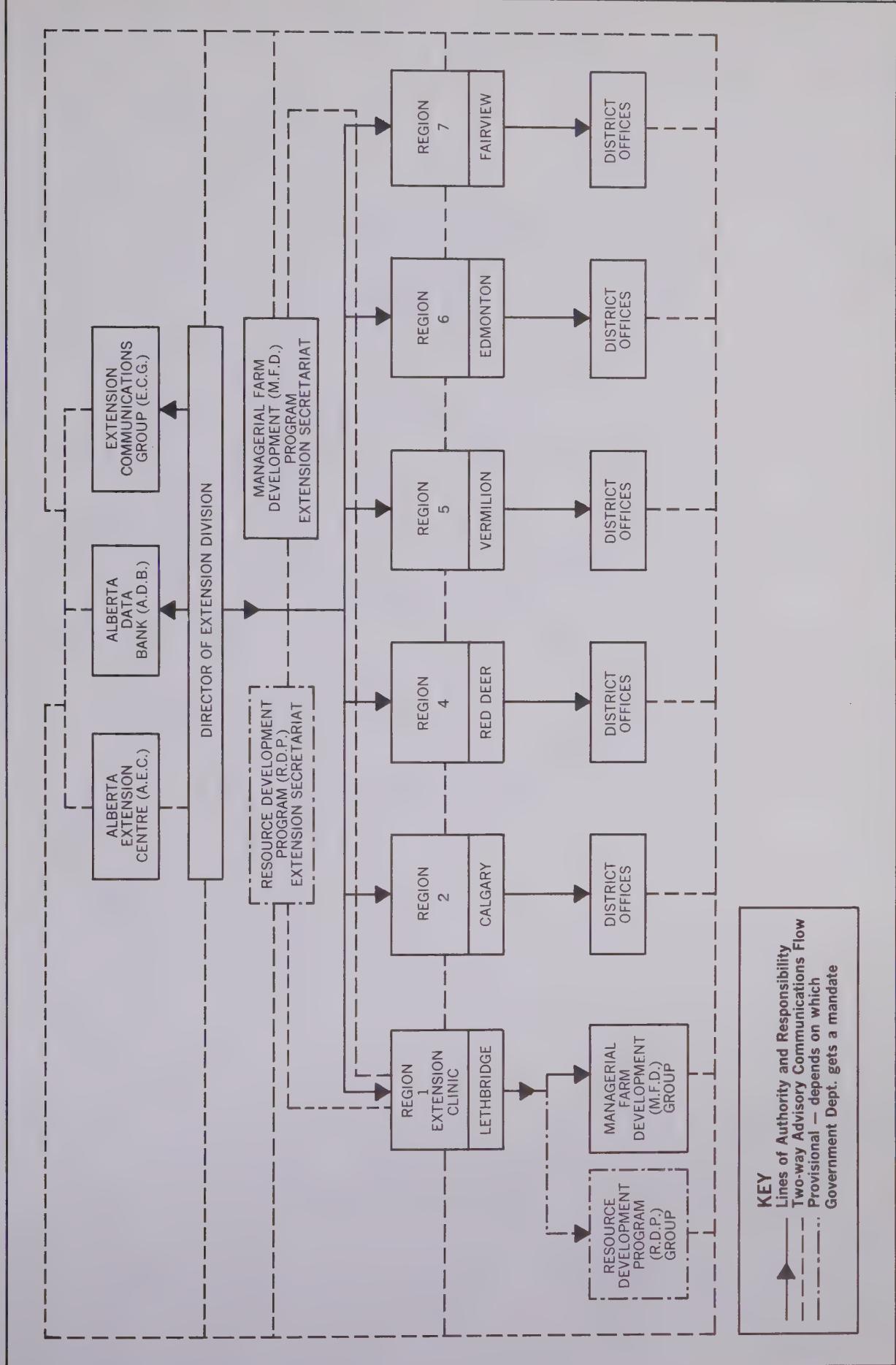


CHART 5-8

Future Extension Division Structure: 1980

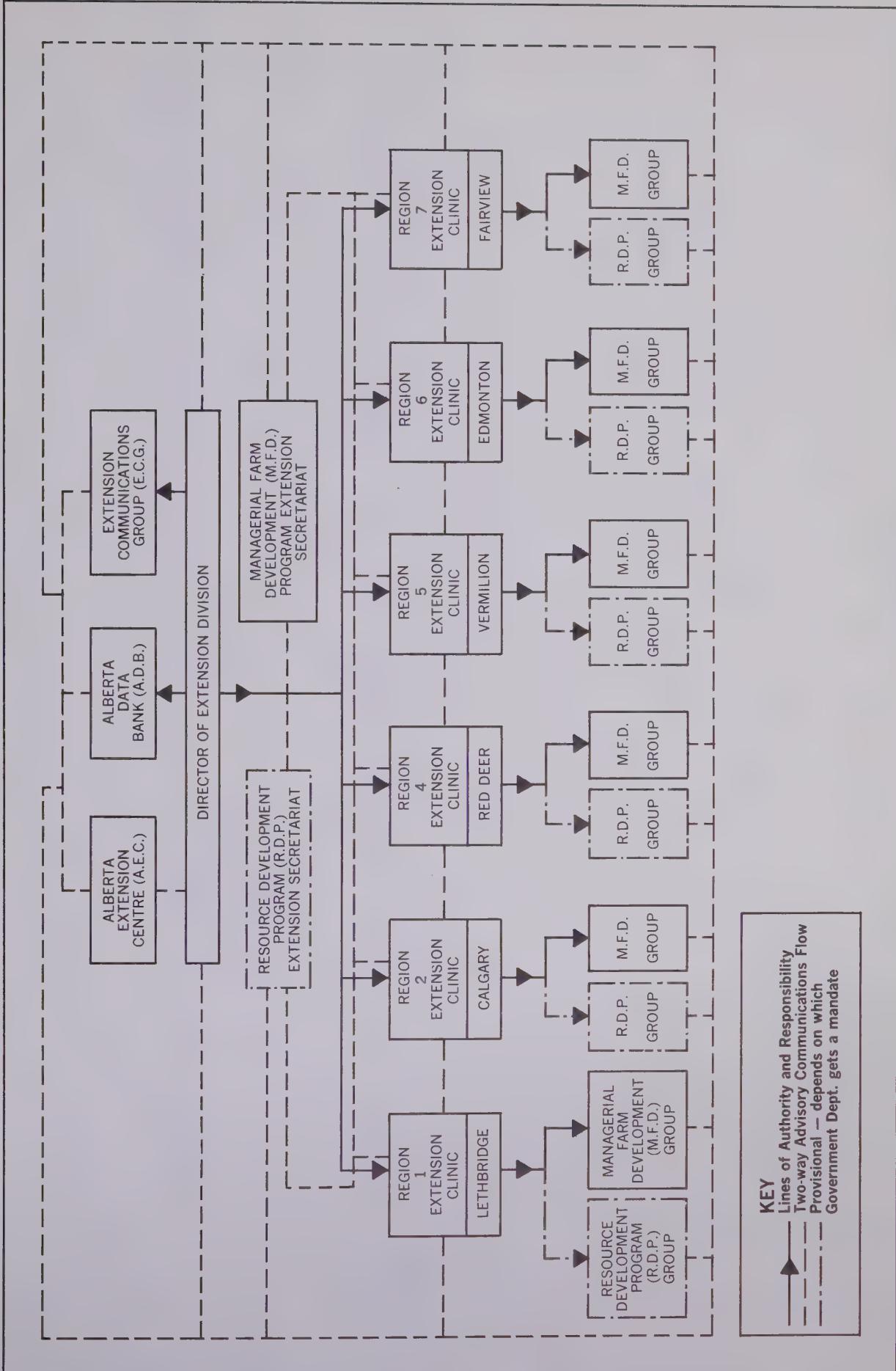


CHART 6-1

Universities and Colleges in Relation to Farm Units: 1970

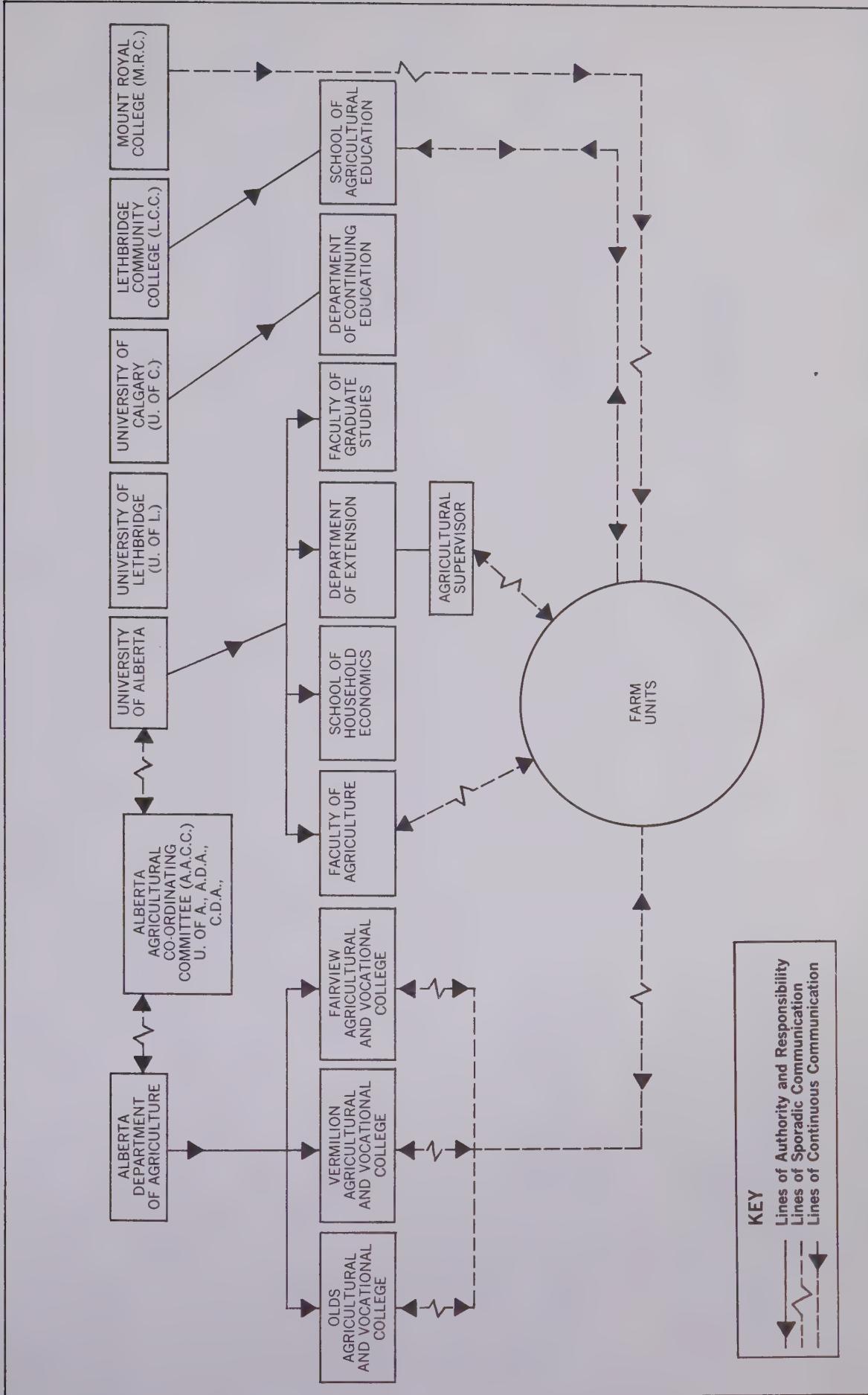


CHART 6-2

Farm Units in Relation to Universities and Colleges: 1975, 1980

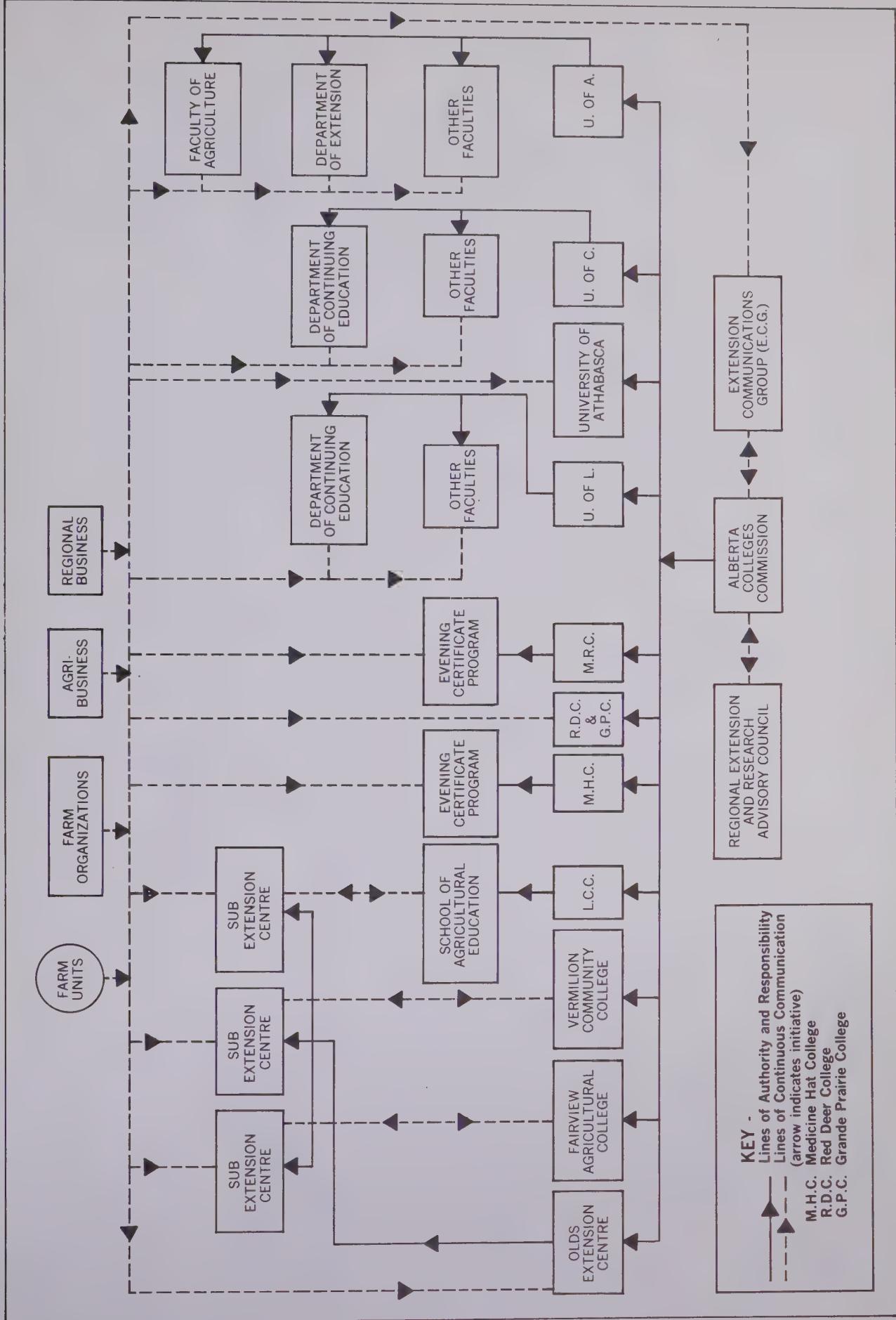
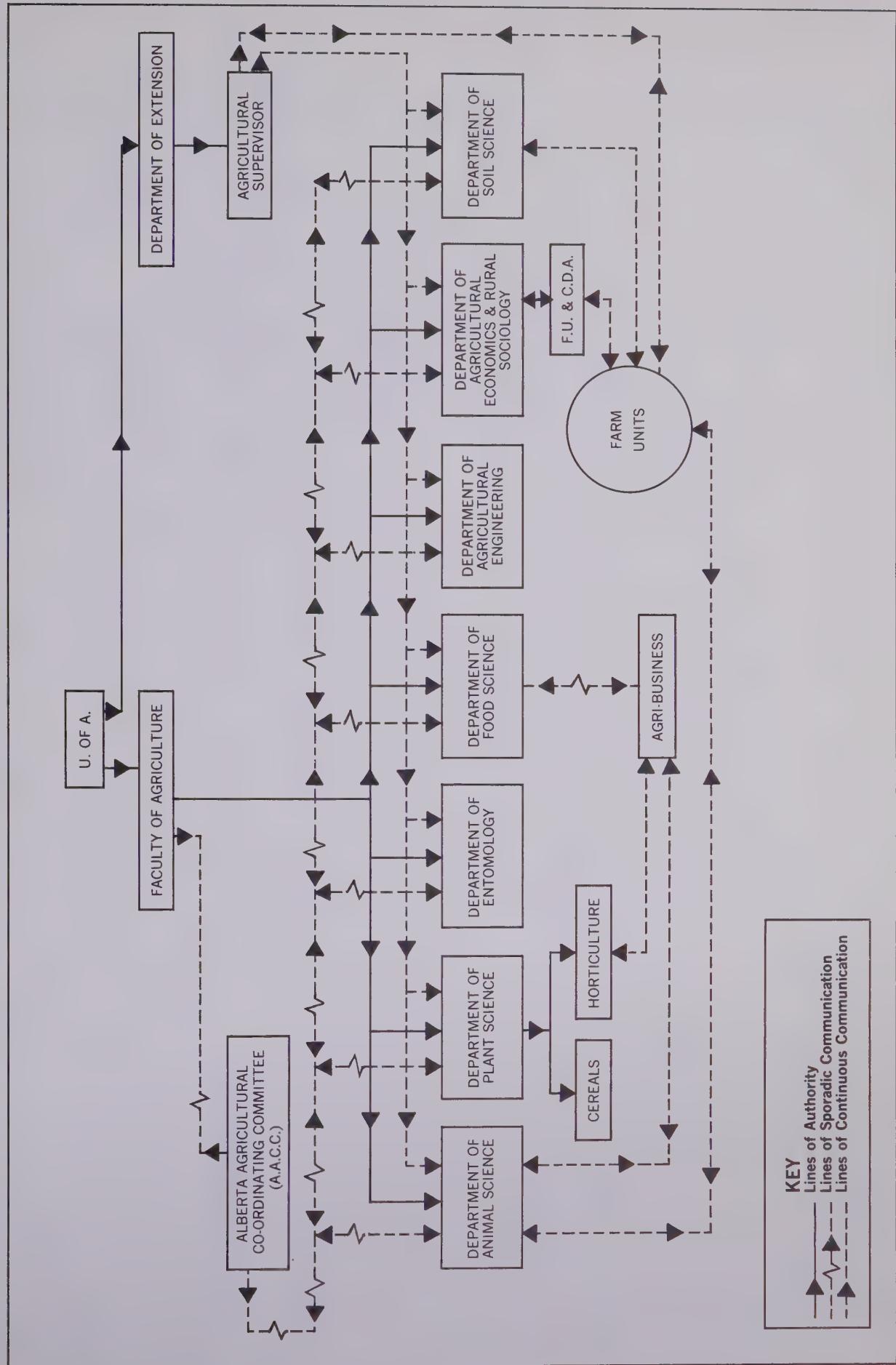


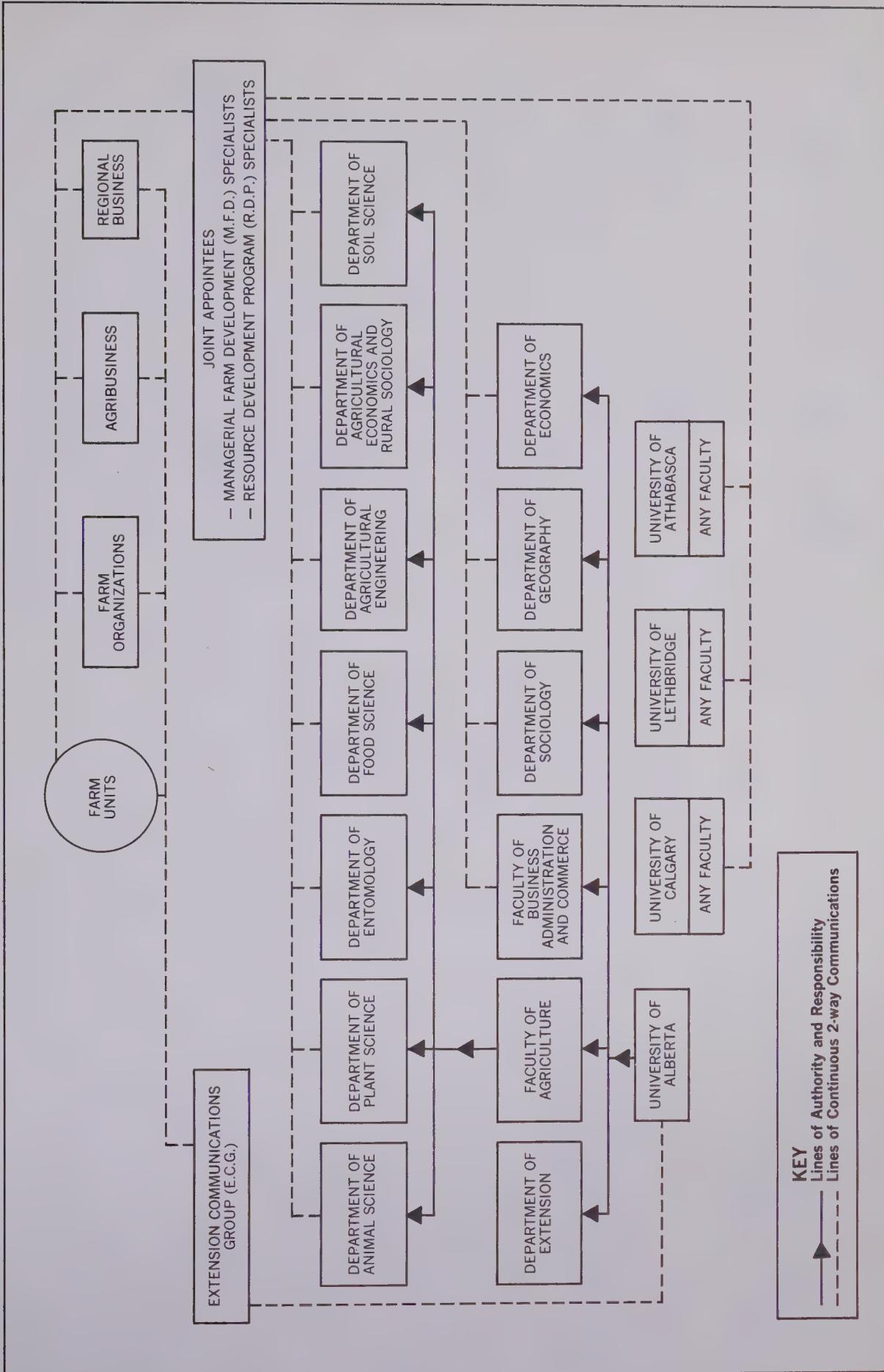
CHART 6-3

University Extension : 1970



University Extension, 1975, 1980

CHART 6-4



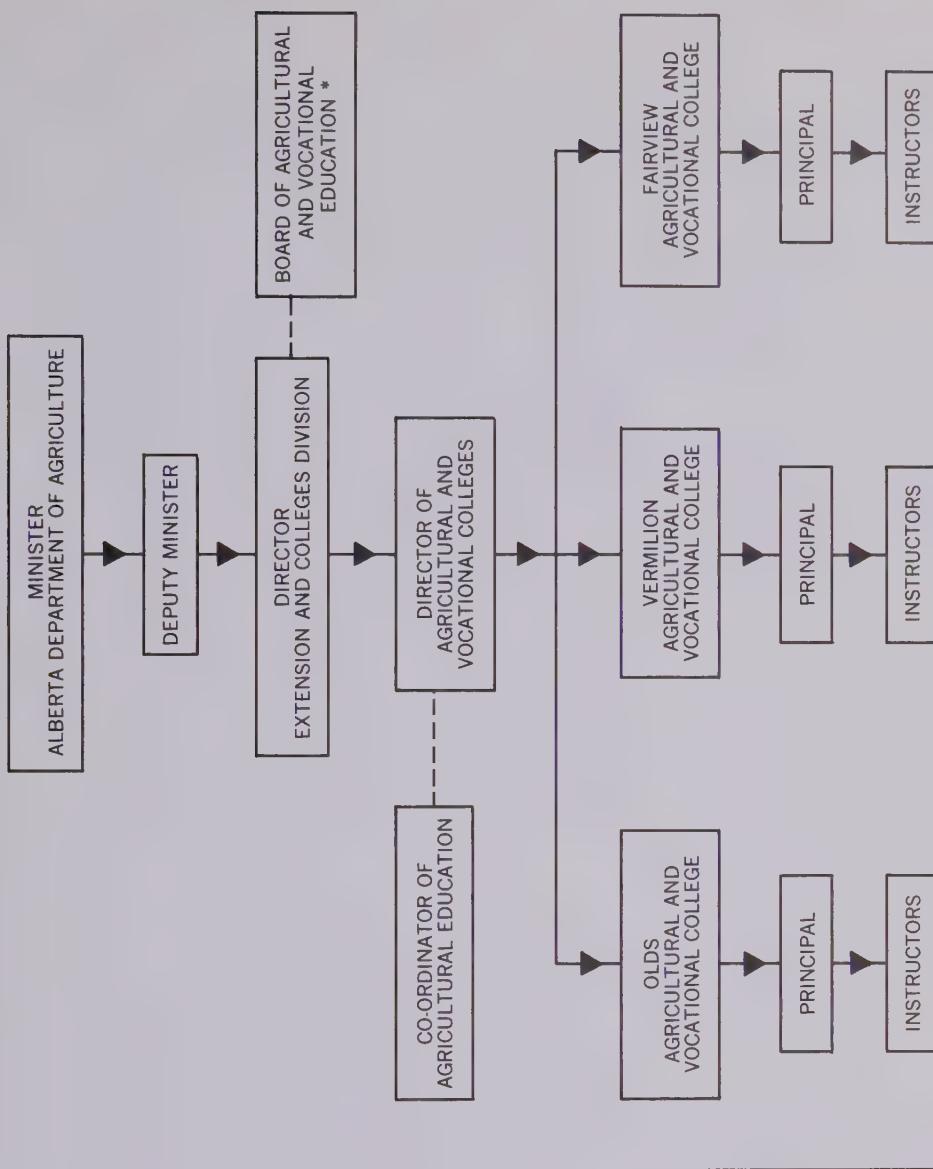


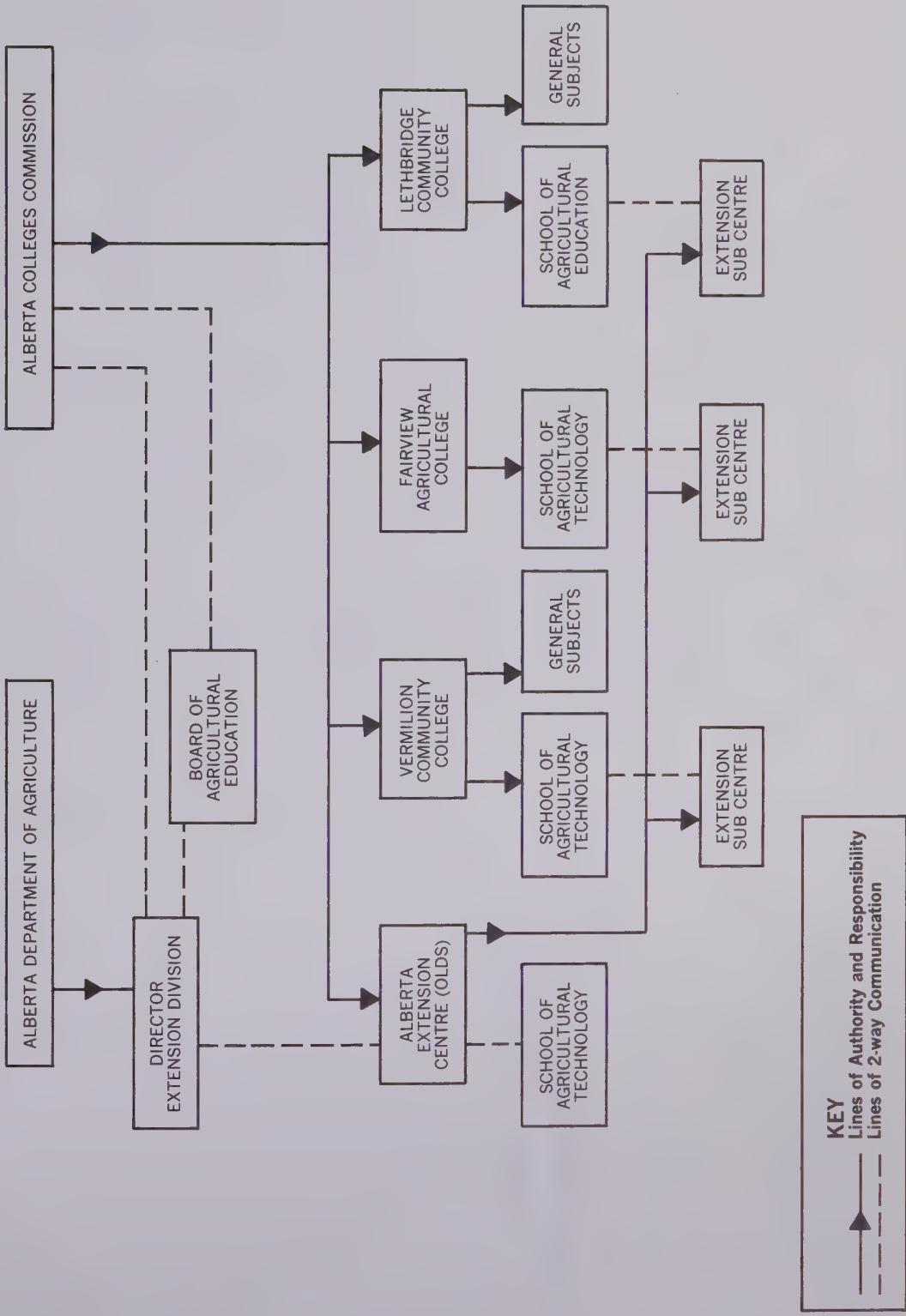
CHART 6-5
Agricultural and
Vocational Colleges: 1970

KEY
— Lines of Authority and Responsibility
- - - Lines of Communication

* Includes Deputy Minister of Education, Dean of Agriculture, Director of Extension and Colleges Division (Chairman), Chairman of Alberta Colleges Commission, a representative of Alberta School Trustees Assoc., Alberta Assoc. of Municipal Districts, A.F.A., F.W.U.A., A.W.I., Agricultural and Vocational Colleges Alumni Assoc., and three members at large.

CHART 6-6

Agricultural and Vocational Colleges: 1975, 1980



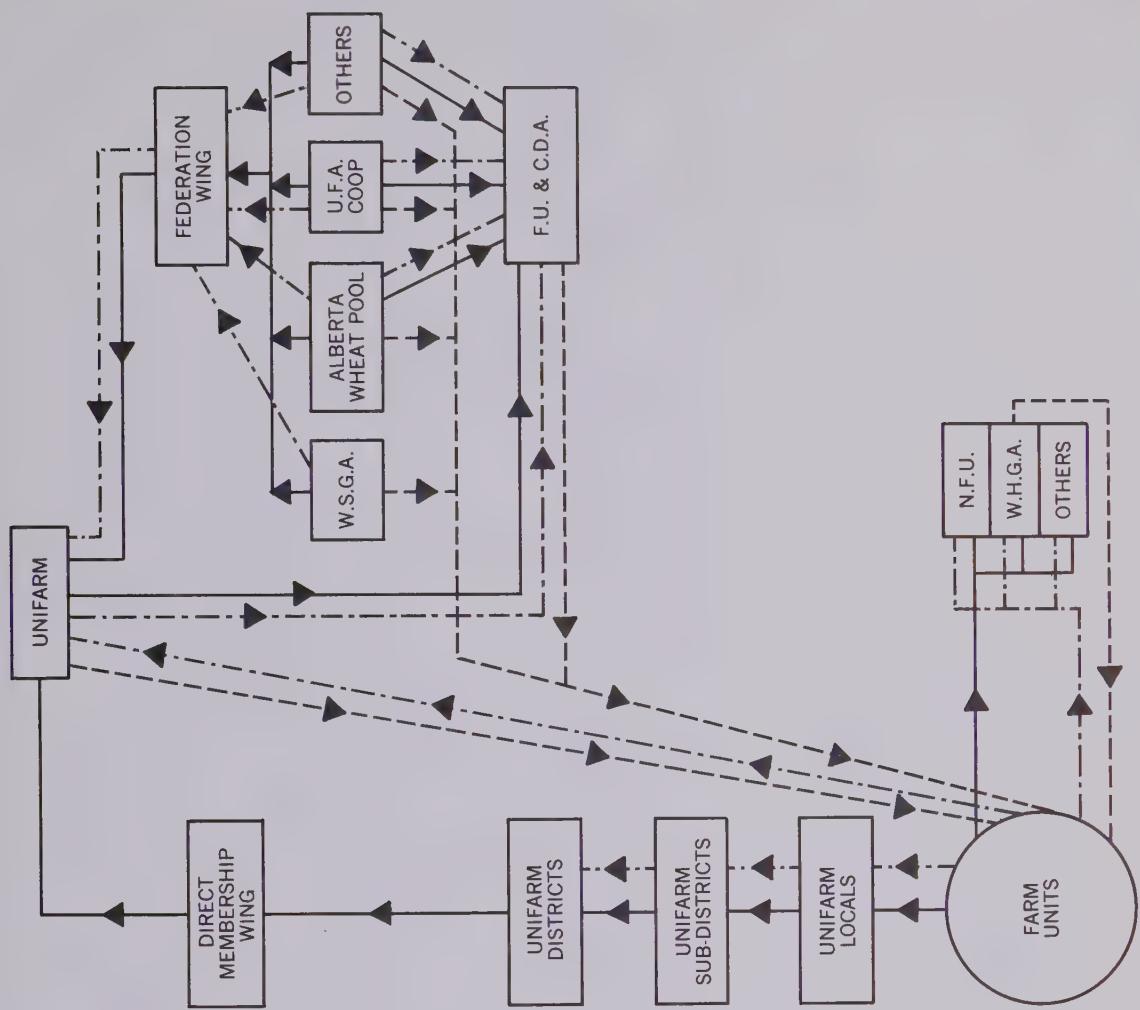
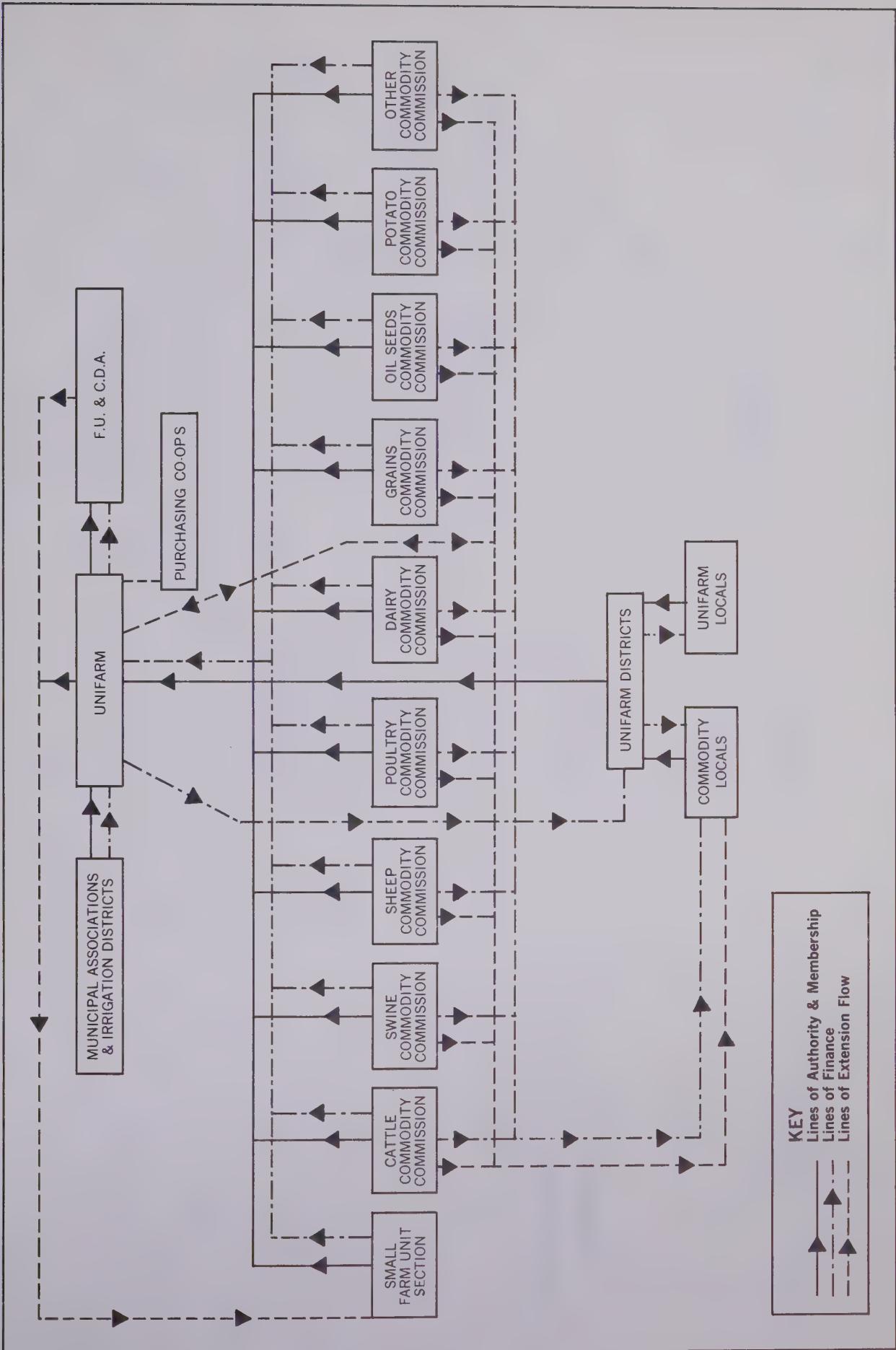


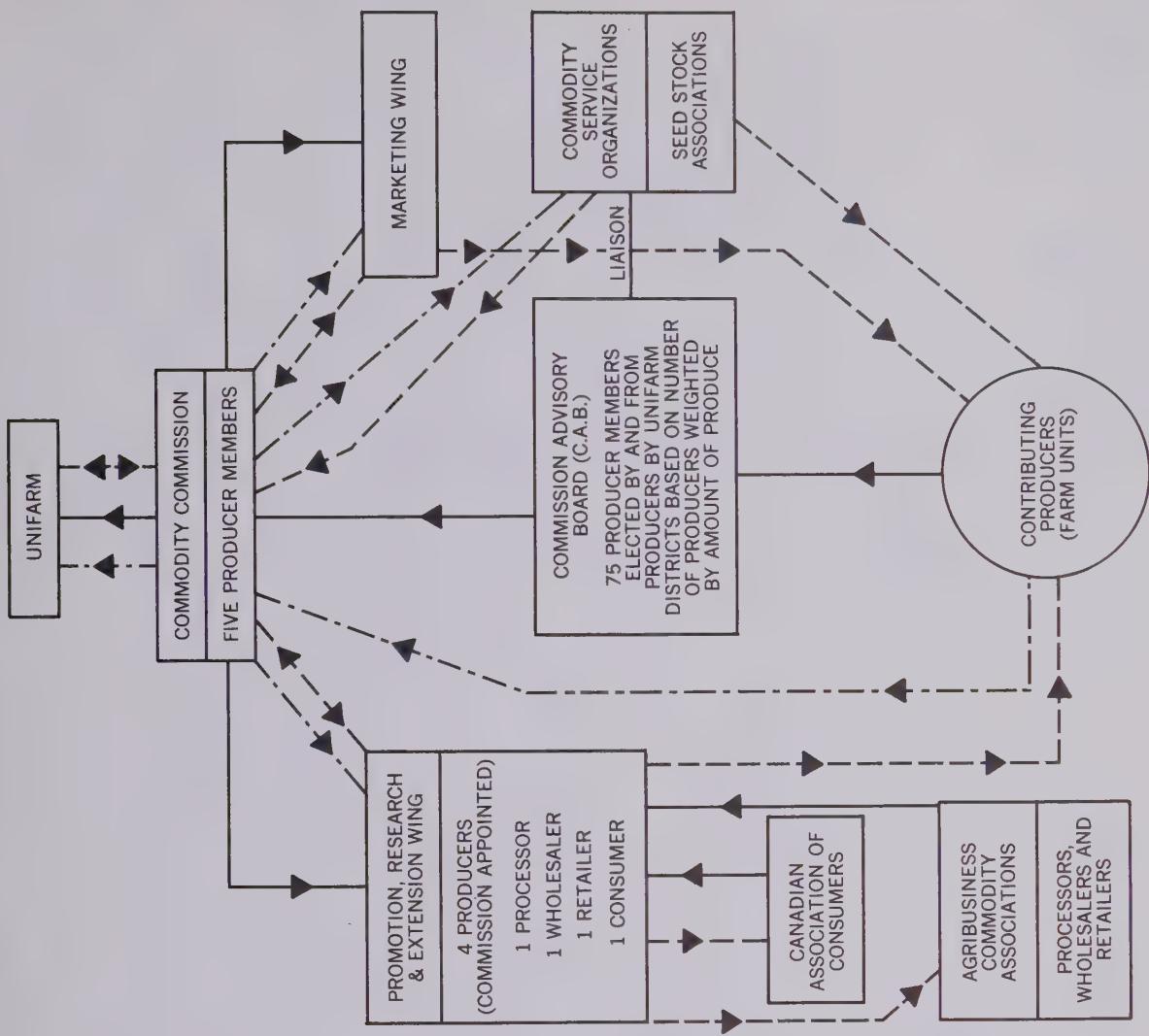
CHART 7-1
Farm Organization
Membership Structure
1970

KEY
 —————— Lines of Authority & Membership
 - - - - Lines of Finance
 - - - - Lines of Extension Flow

CHART 7-2

Farm Organization Membership Structure 1975, 1980

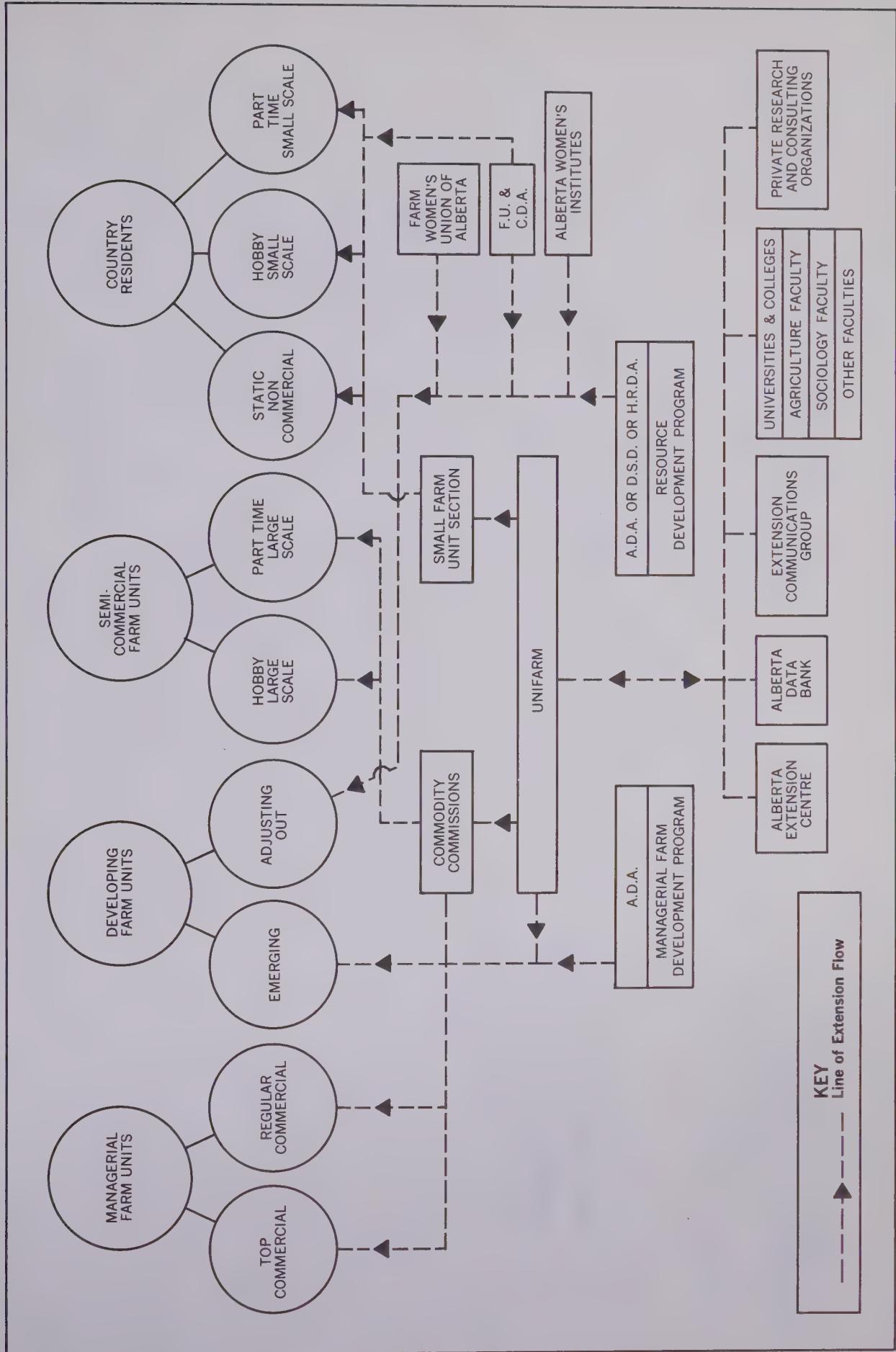




**Representative
Commodity Commission
Structure 1975, 1980**

CHART 7-4

Farm Organization Extension 1975, 1980.



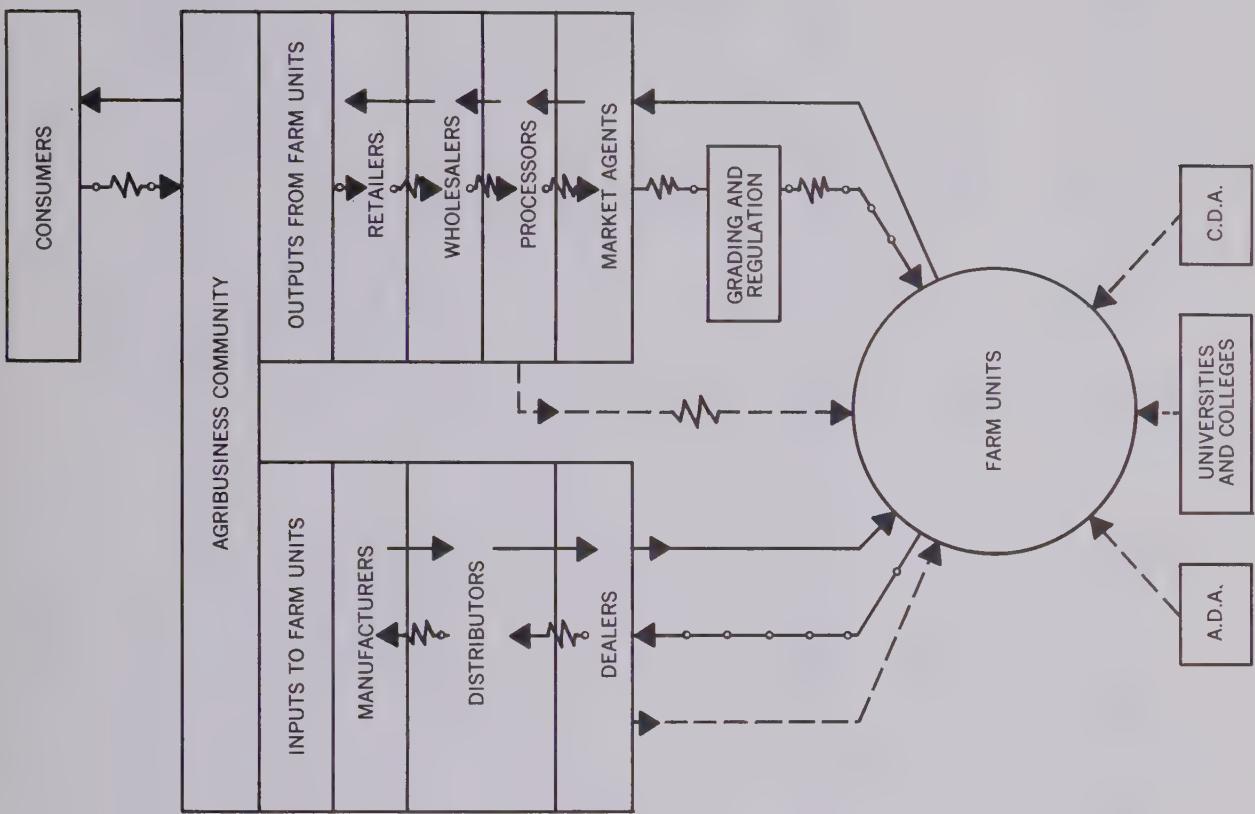
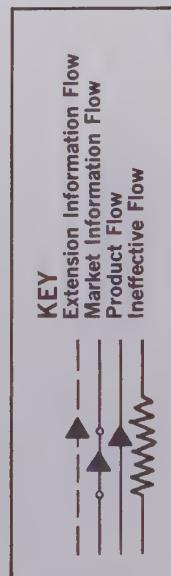
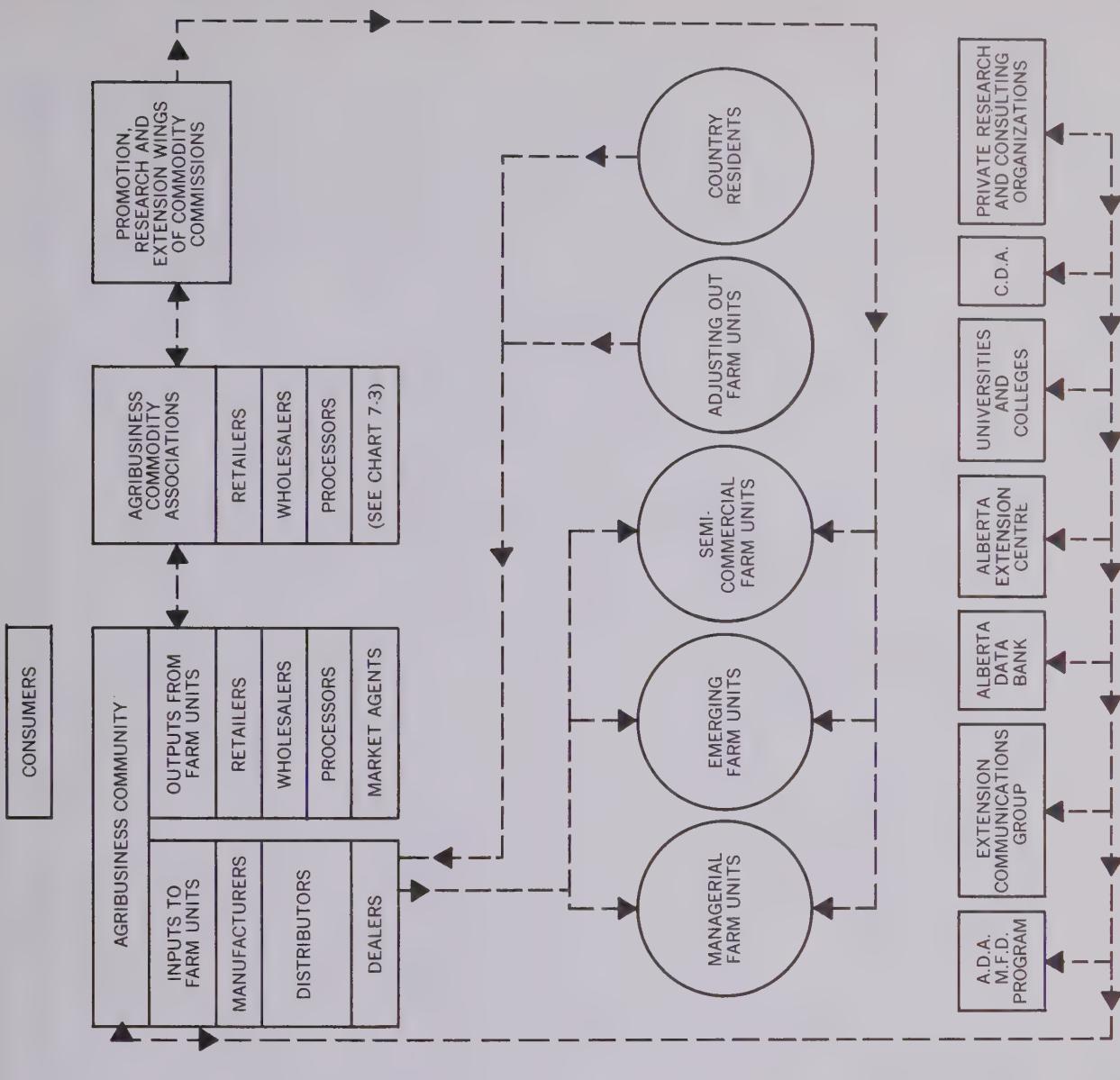


CHART 8-1
**Agribusiness
 Market Information
 and Extension 1970**



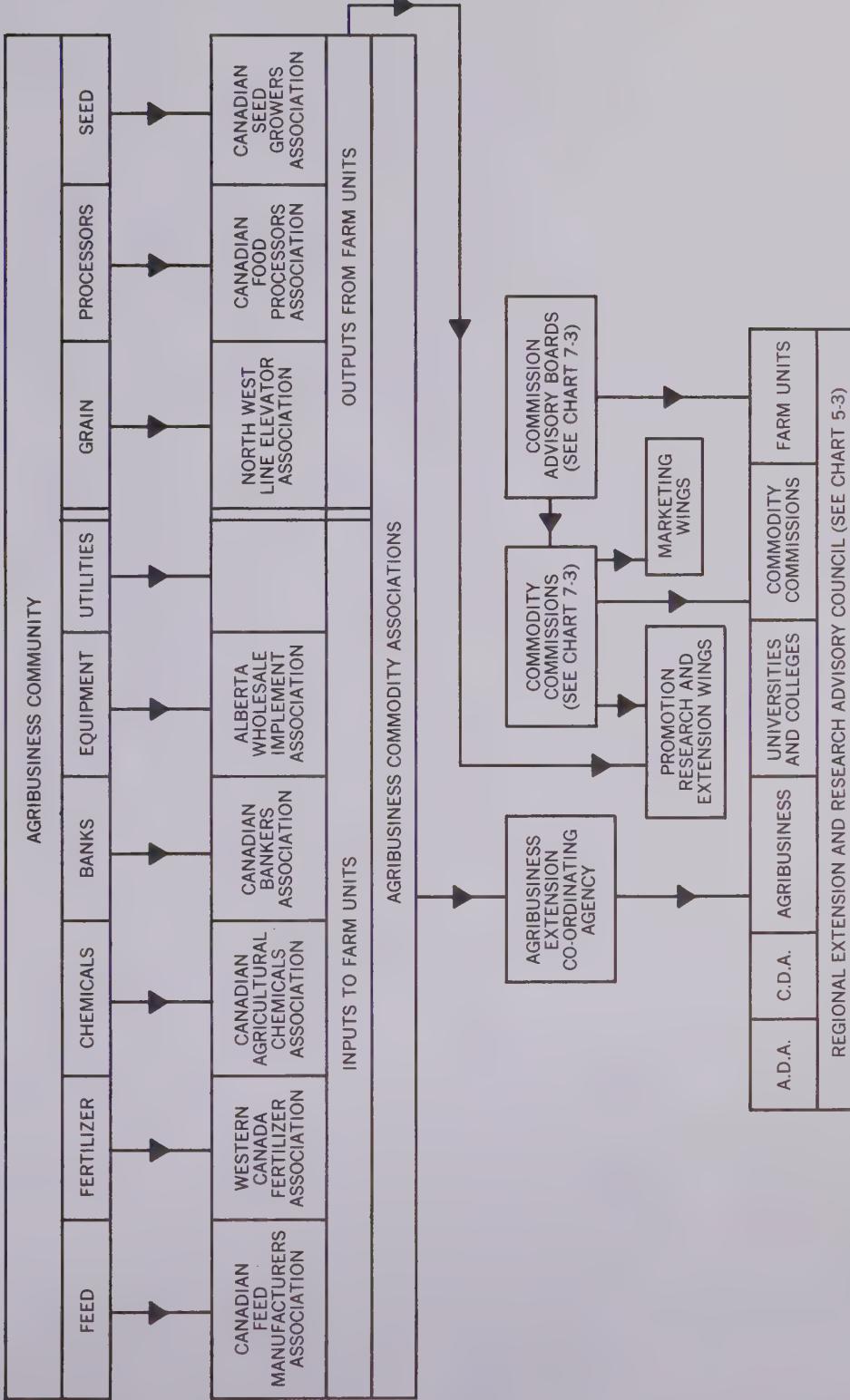


Agribusiness Extension: 1975, 1980

Self-governing Structure of

CHART 8-3

Agribusiness Representation to Extension Co-ordinating Bodies: 1975, 1980



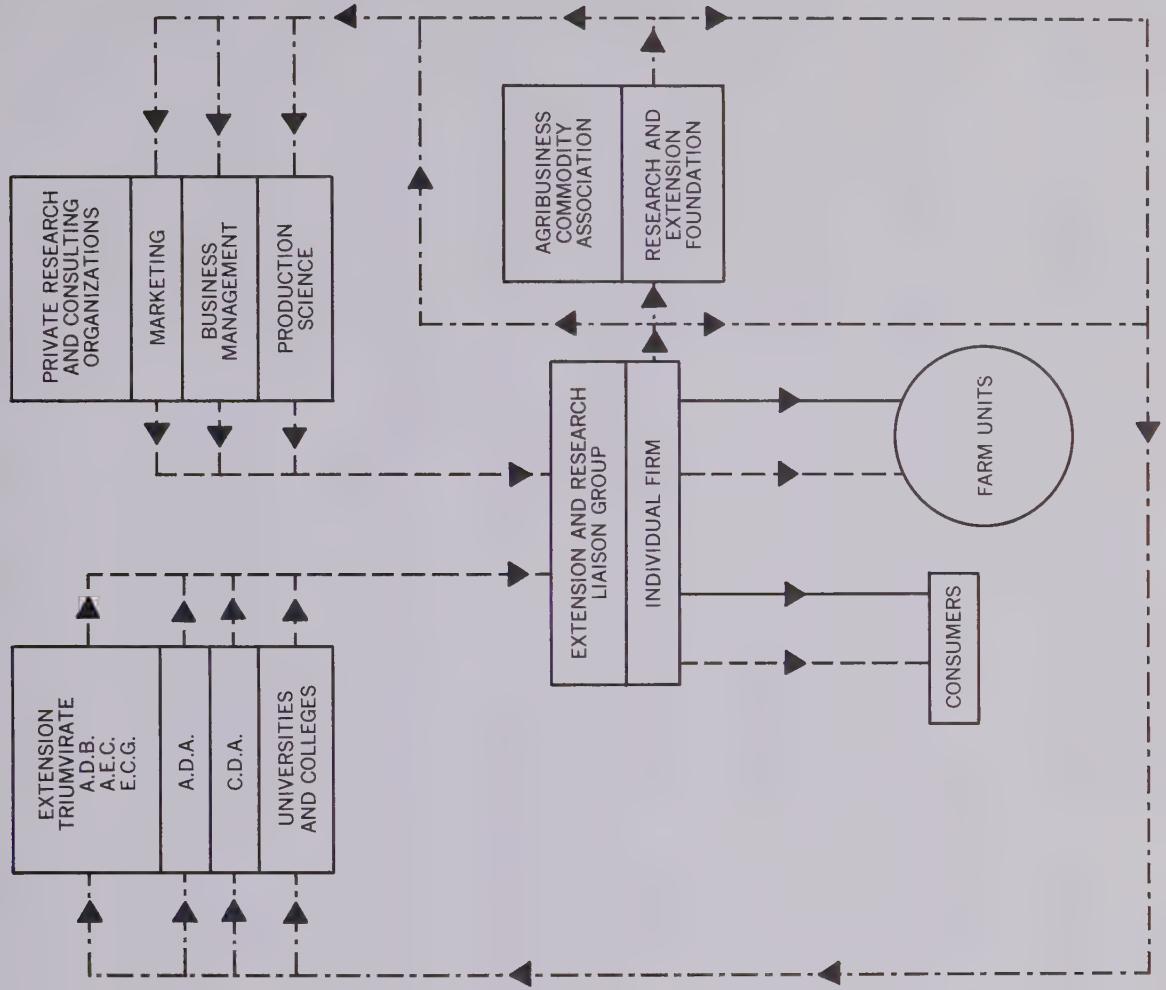


CHART 8-4
Representative Individual
Agribusiness Firm
Extension Structure:
1975, 1980.

KEY

- Line of Information Flow
- Line of Finance Flow
- Line of Sales Flow

CHART 10-1 (A)

Time Scale for Implementation of Study Recommendations

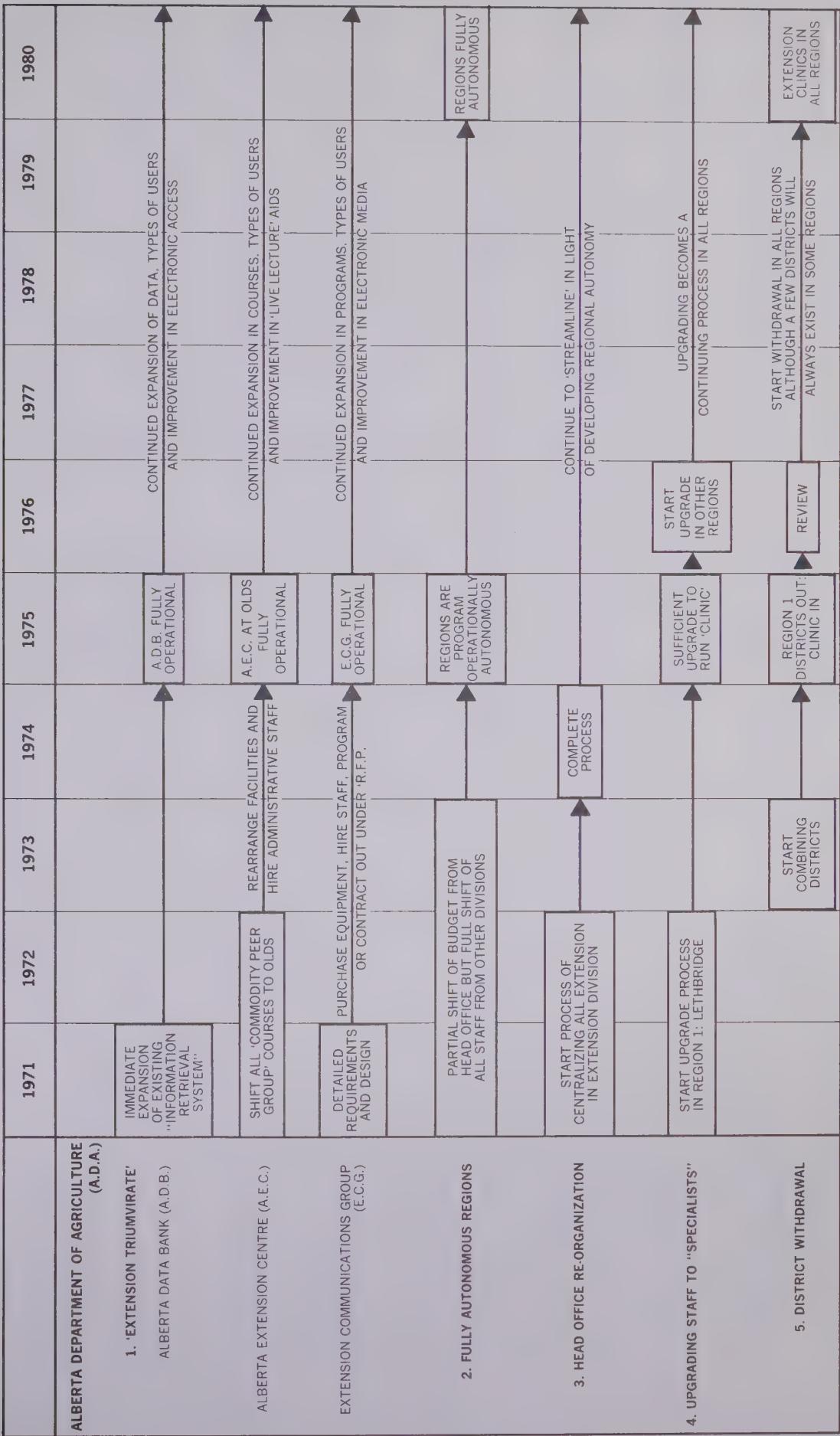


CHART 10 - 1 (B)

Time Scale for Implementation of Study Recommendations

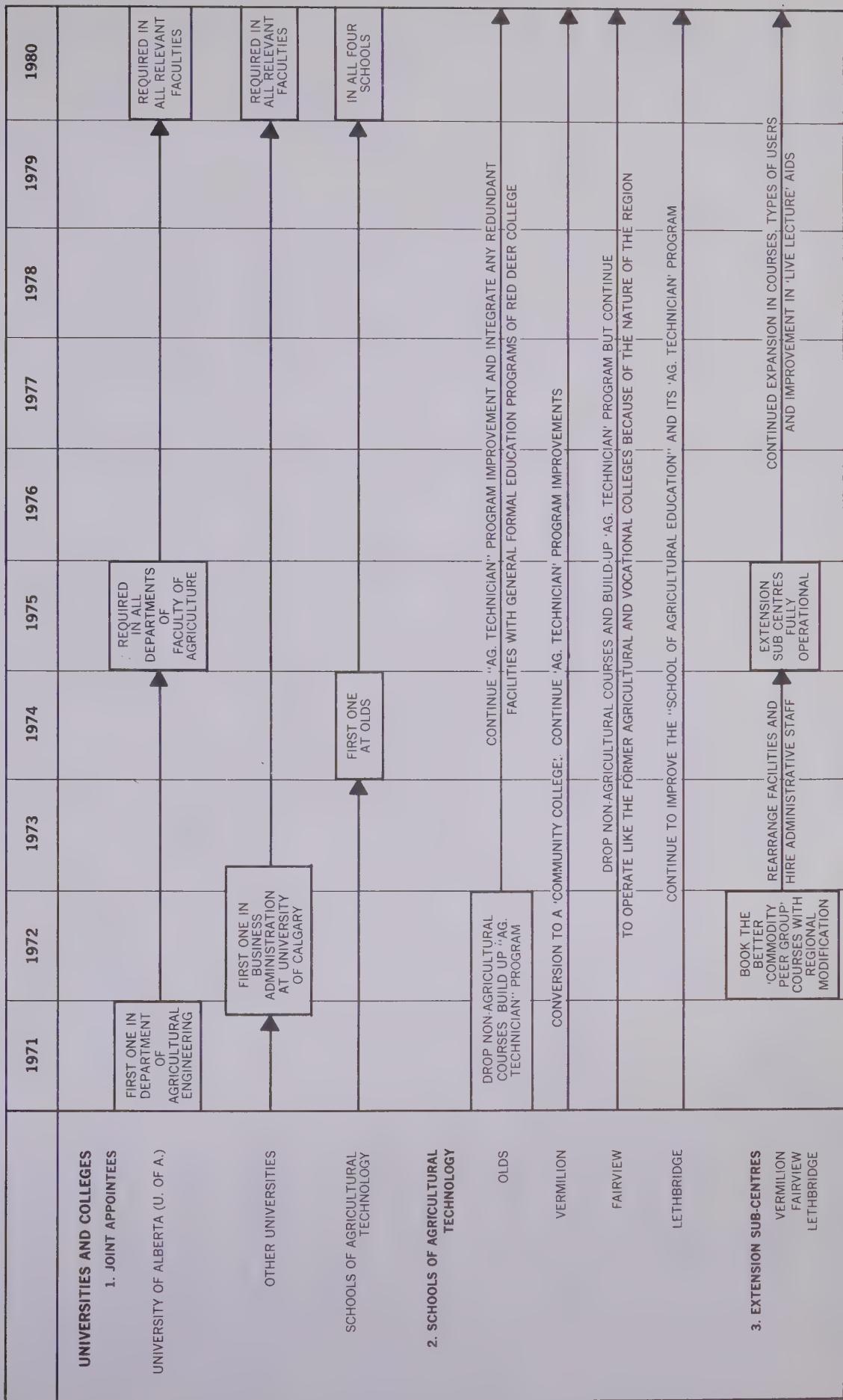
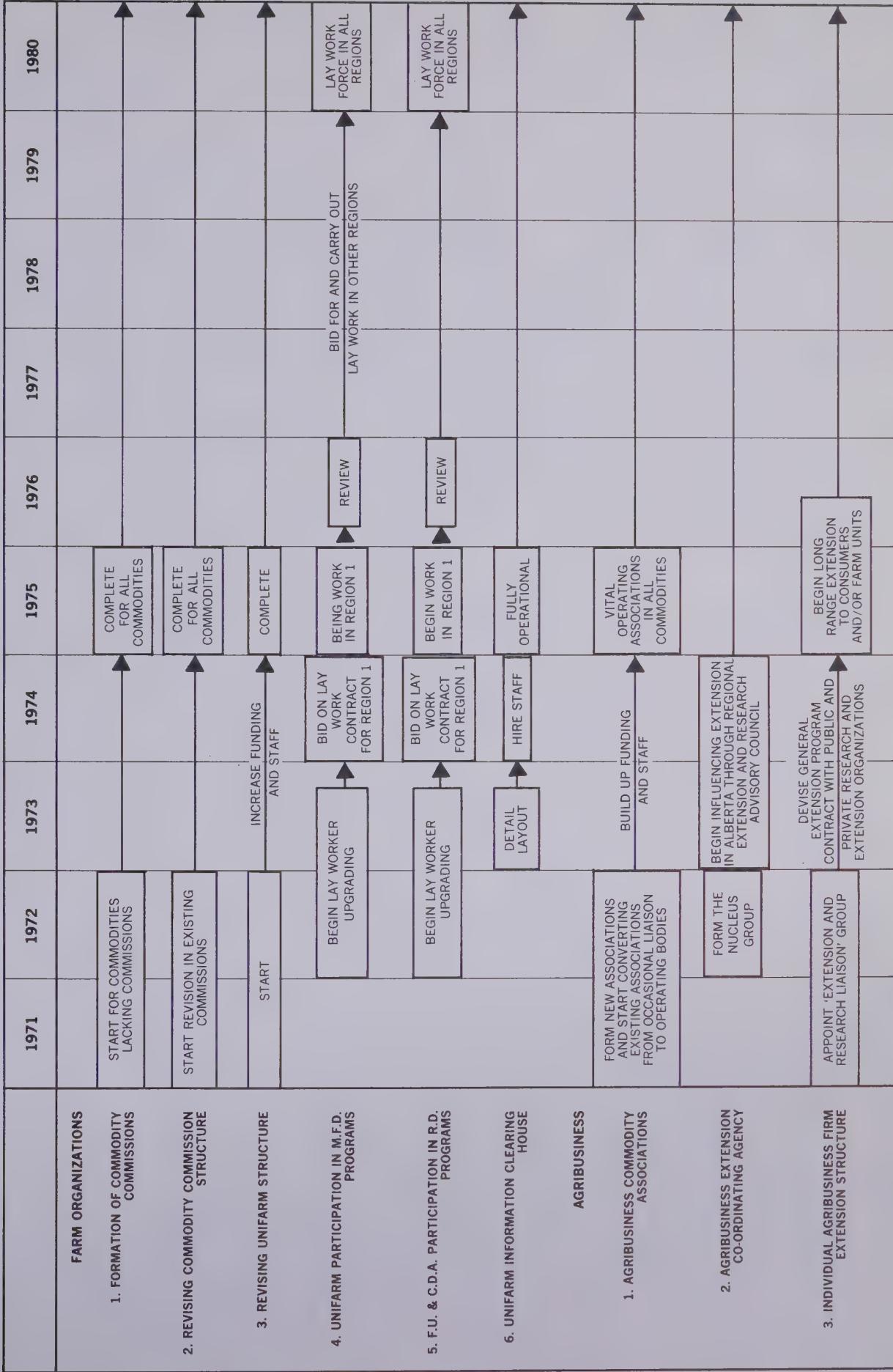


CHART 10 - 1 (C)

Time Scale for Implementation of Study Recommendations



Chapter 4

THE FARM UNIT AND COMMUNICATIONS

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Chapter 4THE FARM UNIT AND COMMUNICATIONS

"In the forties we saw technology as progressive, but didn't see it as a compounding, snowballing thing."

- Farm operator comment
 J. A. Abramson in
 "Rural to Urban Adjustment"
 A.R.D.A. Research Report, 1968

1. THE NUMBER OF FARM UNITS IN 1980(a) Rationalization Based on Present Trends

The Canada Department of Agriculture (C.D.A.) projected the number of farm units in 1980 in one of its papers prepared for the Canadian Agricultural Outlook Conference 1969. The following table summarizes these projections.

NUMBER OF FARM UNITS IN CANADA: 1966, 1980

		1966	%	1980	%
Farm units with annual sales of over	\$10,000	95,000	22	189,000	60
Farm units with sales of	\$ 5,000-\$10,000	97,000	22	47,000	15
Farm units with sales of	\$ 2,500-\$ 5,000	85,000	20	16,000	5
Farm units with sales of less than	\$ 2,500	153,000	36	63,000	20
All farm units		430,000	100	315,000	100

The Report of the Federal Task Force on Agriculture regarded the above projections as being conservative. It was of the opinion that, if its recommendations were implemented there would be even fewer total farm units in 1980 and more than 60 per cent of these in the largest category.

The lack of agricultural statistics and the meaningfulness of those which are collected are often repeated complaints of researchers. In the absence of any published

1980 projection of number of farm units for Alberta, our study team applied to Alberta data the same basic statistical procedure as the C.D.A. used to obtain the above 'Outlook' figures. The following results were obtained:

NUMBER OF FARMS IN ALBERTA: 1966, 1980

		<u>1966</u>	<u>%</u>	<u>1980</u>	<u>%</u>
Farm Units with annual sales of over	\$10,000	17,992	26	32,535	64
Farm units with annual sales of	\$ 5,000-\$10,000	17,117	25	9,150	18
Farm units with annual sales of	\$ 2,500-\$ 5,000	13,862	20	2,542	5
Farm units with annual sales of less than \$ 2,500		<u>20,279</u>	<u>29</u>	<u>6,609</u>	<u>13</u>
All farm units		69,250	100	50,836	100

*Excludes 161 institutional farms

These projections are only as valid as the C.D.A. projections for all of Canada. However, they appear to be reasonable.

Two significant trends are indicated. The first is that there will be a large increase in the number of farm units with sales of over \$10,000. The second, is that the even larger decreases in the number of farm units in the lower sales categories will result in a sizeable decline in the total number of farm units. A realistic definition of 'commercial' agriculture might only include the upper reaches of the top category, which is projected to increase so greatly. The projected declines in farm units would occur in the 'subcommercial' categories.

The increase in the top category will occur as farm units in lower categories increase their financial strength through increased sales and/or improved management. (Higher output prices will also shift farm units into higher sales categories.) With retirements from this category, the number

of individuals who will be 'emerging' into it, is even greater than indicated.

The decrease in farm units in the lower sales categories will be caused by retirements of present farm unit operators and by those individuals who seek other occupations. A considerable number of individuals are projected to 'adjust-out.'

The above calculations assume that present trends continue to 1980. These trends reflect economic, social and political factors. But if the number of farm units were based on economic factors alone, their numbers would be considerably different.

(b) Rationalization Based on Economic Factors Alone

Economic factors dictate that the average size of viable farm units should be much larger than at present. Viable size in terms of invested capital has been estimated in November 1968 by the Rural Development Branch of the Department of Forestry and Rural Development, Ottawa, at a minimum of \$67,000. About that time, Clay Gilson of the University of Manitoba anticipated a minimum capital investment of \$100,000 by 1980. The March 1969 Report of the Commission on Targets for Economic Development (T.E.D. Report) for Manitoba also sets an average \$100,000 target for capital investment in 1980.

Viable size in terms of net income per farm unit has been estimated by the Rural Development Branch to be \$10,000. The T.E.D. Report suggests \$10,000 as a conservative average net income per farm unit in 1980. The Federal Task Force did not attempt ". . . any precise definition of what constitutes 'commercial' agriculture" But it characterized as 'non-commercial' those farm units with less than \$5,000 gross sales. A farm unit with \$5,000 gross sales would not even generate enough net income to

reach the \$3,000 poverty level established by the Economic Council of Canada and accepted by the Task Force.

How many farm units of viable economic size are there room for in Alberta? The Rural Development Branch has suggested that the terms 'viable' and 'economic' mean receiving adequate returns to labour and capital. The return to labour suggested is \$4,000. The return to capital is not specified. But the combined returns to both labour and capital are suggested to be one-third of gross returns, on the average. If the minimum return to capital of \$4,000 is realized, average farm unit gross income must be \$24,000. In Alberta, this level of gross income would have accommodated 36,600 farm units in 1966 based upon total Provincial gross farm income. The average return on the \$115,000 average capital investment per farm unit in 1966 would have been less than 3.5 per cent.

If a 5 per cent return on capital is used (which is considerably less than the cost of borrowing capital), there would have been room for only 20,500 commercially viable farm units in Alberta in 1966. Each of these farm units, on the average, would have had a gross income of \$42,875 and an average capital value of over \$205,000.

The foregoing are only approximations. The number of farm units will not approach these low levels even by 1980. Factors such as other sources of income and part-time operations have not been considered. The real point of the foregoing is to indicate that there are many valid reasons why rationalization might take place at more rapid rates than in the past. The more rapid the process of rationalization, the greater the number of farm units which adjust-out. Our estimate of 50,836 farm units in Alberta in 1980, based on present trends as per C.D.A. basis of projection, should be considered a maximum.

Rationalization in Alberta's agriculture industry means that there are two reasonably distinct groups of farm units: those which are now or can become 'commercial'; and those which are now or will be adjusting out. Two distinct policies will be necessary. Two distinct extension programs will be necessary.

2. FARM UNIT ADJUSTMENT(a) The Number of Adjusting-Out Farm Units

The C.D.A. and Task Force estimate that 115,000 farm units will disappear in Canada between 1966 and 1980. Any changes in policy which promote rationalization will increase this number of adjusting-out farm units.

In Alberta, using similar forecast procedures as the C.D.A., we show over 18,000 farm units disappearing by 1980. If long run economic viability becomes more of a factor, the number of adjusting-out farm units could reach 30,000. The trend to large farm units is inescapable. Therefore, increased numbers of adjusting out farm units are also inescapable.

(b) Differences Between Rural and Urban

In general use today are the terms 'rural' and 'urban.' 'Rural' applies to that area lying outside major population centres. It is a confusing word because some use it interchangeably with 'farm' as in 'rural population' and 'farm population.' At best many construe it to mean 'non-town' meaning any area outside of a population settlement.

Conversely, 'urban' is a confusing word because some apply it to small towns, others only to major population centres.

In our study we use the word 'regional.' This is the term for the future because it encompasses all of the area (non-town and town) outside major population centres. It does not suggest a life-style as 'rural' does and is in keeping with the broad perspective of all types of 'regional planning' be that agricultural, municipal, social, physical resource, recreation, or other. Further it suggests the interaction of the major population centre with the region around it.

We also use the word 'metropolitan.' By this we mean major population centres; those with a population over 25,000. Included are Edmonton, Calgary, Lethbridge, Red Deer, and Medicine Hat.

The gaps or differences between regional and metropolitan societies are narrowing. As 'rural-urban interlock' or rather 'regional-metropolitan interlock' increases, the reluctance of the majority of regional society to accept new technology and resultant change decreases.

(c) The Widening Gap Between 'Commercial and 'Non-Commercial' Farm Units

Commercial farm units, in terms of commodity peer groups, are widening the economic and social gaps between themselves and 'non-commercial' farm units. This is not by choice but by the economics of viable agriculture. The Department of Agricultural Economics and Rural Sociology (University of Alberta) speaks to the widening gap in the following manner:

"The agricultural extension effort . . . has been increasingly focussed upon the provision of technical farming information. One of the goals . . . is the increase in . . . competitiveness of the farming industry. Extension has been successful But in doing so, . . . it has intensified the economic and social differentials The farming community is in . . . danger of being . . . polarized into the technically progressives and the traditionalists."

The foregoing is pertinent although it is an overstatement to imply that extension is the root cause of polarity. Traditionalism has been built in to the farm community for some time. However the Department's remarks echo those of Clay Gilson to whom we referred in Chapter 2.

Recognizing polarity and its implications, it is obvious that a good portion of extension effort, agricultural and other, must be devoted to the non-commercial farm units facing adjustment out of agriculture.

(d) Programs for Adjusting-Out Farm Units

The Report of the Federal Task Force on Agriculture (December 1969) sees a need for

"extension workers especially trained to deal with the lower levels of farming; to provide advice and encouragement on an individual farm basis and short-courses in the community, tailored to the needs of farmers not reached by existing programs."

The Alberta Department of Agriculture (A.D.A.) has recognized the farm unit problem and has undertaken some programs in Census Divisions (C.D.'s) 12, 14 and 15 in conjunction with A.R.D.A. The program in Edson (C.D. 14) was the most advanced. This type of A.R.D.A. program concentrated on 'poverty pockets' where farm adjustment was a recognized need. Programs were carried out by the A.D.A.'s A.R.D.A. Branch until the branch was transferred to the Human Resources Development Authority (H.R.D.A.) in 1968. Farm unit adjustment took place by building awareness through local committees. Farm unit adjustment committees were established to aid those wishing to adjust out and retraining programs were instituted.

People involved in the foregoing programs have recently examined the farm unit adjustment question. They have recognized that land adjustment alone will not solve existing problems. Total regional adjustment is considered as it applies to the non-agricultural population as well as farm units.

People that have been involved in Alberta farm adjustment to-date see five regional adjustment opportunities: land adjustment, alternate resource use, education, alternate employment, and retirement. Land adjustment can involve acquiring land, disposing of land, improving existing land holdings and developing unimproved land. Alternate resource use involves individuals using their land resources for

different purposes. The individuals involved will require different skills. The third alternative, the education alternative, involves vocational retraining and academic up-grading. The fourth alternative, alternate employment is only realistic for individuals already possessing some other skill or training. Individuals who do not have this choice, will have to follow some path in the education alternative. The last alternative, retirement, is open to those who are not capable of following the other alternatives due to age, health or lack of other skills.

Unifarm, the Task Force, and the authors of the "Low-Income Sector" position paper for the 1969 Agricultural Congress all point up the role played by a part-time small-scale farm operation as a transitional device in the agricultural adjustment process.

The foregoing alternatives for assisting individuals and farm units in 'adjusting' are pertinent. We would only emphasize that adjustment is an extremely broad process. It does indeed involve more than just land adjustment. Also adjustment is not confined to 'pockets' or 'special areas' or 'designated regions.' Individual farm units will be confronting adjustment problems Province-wide. It will be necessary to have extension programs to deal with these farm unit adjustment problems spread throughout every region of the Province.

3. THE EVOLUTION OF THE FARM UNIT

The following discussion of the evolution of the farm unit is in part based upon the Task Force Report which has described the evolution of the farm unit as centering around the family farm. The family farm has been the backbone of rural society. It has also been an efficient agriculture production structure.

The concept of the family farm has been an emotionally charged issue. But the very concept itself has been changing. In 1959 an official of the Canadian Federation of Agriculture (C.F.A.) said,

"The long-term objective of agriculture in Canada should be the development of rural communities based upon the maintenance of the family farm."

Ten years later another official of the C.F.A. changed the emphasis to "economically viable farm units." Since economic viability came to mean fewer units, this meant fewer family farms.

Gradually it has been recognized that the family farm is not a goal in itself. It is only one means of achieving the higher personal goals of various social and cultural values. The family farm should be judged as to its suitability for achieving these goals. The Task Force feels that family farms or farms run by families will remain a part of Canadian agriculture. But there will be serious threats to the family farm as it is now known and it will constantly change.

(In our study we use the term 'farm units.' This is done to better deal with all aspects of constant change. First it demonstrates that the size of physical inputs such as land, buildings, equipment and inventories are critical to viability wholly apart from desire to succeed or managerial ability of the operator. This tends to remove a certain amount of emotionalism connected with talking about 'farms' or 'farmers' against "insurmountable factors beyond their control." Then we add back the human element to the physical. Our farm unit encompasses the technical and managerial ability of the operator and his assistants.

This could be a family: a father and his sons plus a wife handling the bookkeeping. Or it could mean a professional foreman, his wife and some 'top hands.')

The ability of small family farm units to produce at low costs has been decreasing for a long time due to rapid technological change and a cost-price squeeze. Individual farm units must continually expand the scale of operations while increasing efficiency in order to even maintain net incomes. This means that the number of economically viable family farm units has declined.

The family farm units of the past have tended to separate into two broad groups. The first group is comprised of those family farm units which have not been able to expand and remain viable due to insufficient earnings to save from or justify borrowing. Despite some productivity improvements these family farm units fall further behind. They have tended to become part of the rural poor due to declining real and relative incomes from their uneconomic farm units. Or they have been forced out of farming altogether. The qualities of strength, energy and initiative are no longer sufficient for success as in the past. The lack of formal and technical education which were not essential in the past has made the transition out of farming difficult if not impossible for many.

The second group has been able to expand and remain economically viable. But, the resultant farm business has become increasingly complex. It has become increasingly difficult for one family to combine the necessary production technology, managerial and marketing skills. For this reason many of the recommendations of our study speak to improving the ease and speed of access to information and people the family can add to its 'management team.'

These two broad groups are part of a dynamic process where farm units move within and between groups. But in general their

wants and needs are quite different. Governments and extension agents must recognize this.

The Task Force speaks of family farms, which have tended to evolve into two broad categories, and a "farming 'elite' of large-scale business-oriented, technically experienced operators." But this breakdown is not sufficiently specific for extension purposes. Therefore, we have categorized the following types of farm units which are also shown in Chart 4-1.

<u>Category of Unit</u>	<u>Characteristics</u>	<u>Extension Posture</u>
Managerial Farm Unit (Top Commercial)	Multi-dimensional, cosmopolite viewpoint; a natural or trained managerial executive environment; innovation atmosphere.	Open up all sources of data for access on initiative of the farm unit.
Managerial Farm Unit (Regular Commercial)	Linear, localite, viewpoint; partial grasp of the managerial process and decision theory; 'early adoption' or 'early majority' atmosphere.	Open up all sources of data for access on initiative of the farm unit.
Developing Farm Unit (Emerging)	Initiative, intelligence, learning ability and existing technical skills to upgrade to Regular Commercial. May have some off-farm income but farming is the main line of business endeavour.	Train in information search, management, and advanced technology by a Managerial Farm Development (M.F.D.) group.
Developing Farm Unit (adjusting-out)	Initiative, intelligence, learning ability better suited to non-agricultural endeavour.	A social development, retraining type of program by a Resource Development (R.D.) group.

<u>Category of Unit</u>	<u>Charateristics</u>	<u>Extension Posture</u>
Semi-Commercial Farm Unit (Hobby and Part-time, Large Scale)	Characteristics of the Top Commercial, but main line of business endeavour is outside the farm unit.	Open up all sources of data for access on initiative of farm unit.
Country Residents (Static Non-commercial)	<p><u>Type 1:</u> Modest existence but reluctant to emerge or adjust even though could in economic terms.</p> <p><u>Type 2:</u> Below subsistence level and unable to emerge or adjust.</p>	Open up all sources of data for access on initiative of the farm unit. (Type 2 may require some form of long-term income supplement.)
Country Residents (Hobby and Part-time, Small Scale)	Involved in agriculture for the aesthetic benefits or needing a small farm income input as part of a total income mix.	Open up all sources of data for access on initiative off farm unit.

'Ajusting-out' farm units may be in or move through a 'part-time' phase. However, this is apart from wholly part-time farm units, either large or small scale. Further, top commercial units may include those of absentee owners run on a full-time basis by a farm or ranch manager. Similarly the operator of a managerial farm unit who builds in management and devotes much of his time to other endeavours may be classed as a large-scale part-time farmer or a top commercial absentee owner. In either case, the extension posture is the same: access to all sources of data on operator initiative.

4. THE FARM UNIT IN PERSPECTIVE(a) A World Perspective

In 1968 the Organization for Economic Co-operation and Development (O.E.C.D.) held the Fourth Working Conference of Directors of Agricultural Advisory Services. The following countries were represented: Austria, Belgium, Canada, Denmark, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, the United States, and Yugoslavia. The problems faced by Alberta are not unique as indicated by the following points based on the Summary Report of the Conference.

The United Kingdom faces a farm adjustment problem. One-half of the 400,000 farm units produced only 8 per cent of gross agricultural output. Since 1959 there has been a management improvement and financing scheme to upgrade those small farm units capable of becoming viable. The National Agricultural Advisory Service's marketing programs first concentrated on the farm units and marketing agencies. Work among distribution firms, retailing firms and consumers is regarded as a later and more specialized development. U.K. innovations of note are: government payments as a reward for keeping farm records; closed-circuit TV for farm unit demonstrations; and, data banks of model farm operations.

In West Germany, private associations of farm unit operators hire non-government administrators with some financial assistance from the government. Regional development plans have been emphasized as West Germany has attempted to decentralize industry into agricultural areas. A physical program of farm unit consolidation is synchronized with operator conditioning programs using farm unit operators from communities where consolidation has already taken place.

In the Netherlands, socio-economic extension is the responsibility of farm unit operator associations and receives an 80-90 per cent subsidy from the Ministry of Agriculture. Socio-economic extension deals with those who 'fall out' of programs of reclassification of farm unit operators into other activities. 'Fall out' gives rise to psychological and retraining problems. From the Netherlands comes the feeling that for technically advanced farm units, time consuming extension field service advice offered to individuals can be replaced by computer and telephone. Advice to farm units is still based on economic analysis but is assessed in a family and individual social context. As regards joint extension, communities which wish to bolster the number of government advisors may do so if they pay 50 per cent of the cost.

In Ireland, the small low income farm units do not actively seek advice as do large units. "There can be little doubt that the approach to advisory work on low income farms differs fundamentally from that on commercial farms." The former have conservative and non-receptive operators while operators of the latter are conscious of change. Low income farm unit operators tend to lack confidence which lack has been reinforced by television elevating the activities in other occupations. Advisory programs have not reached this type of farm unit because: advisors work with farm units which demand their services; establishing contact with low income farm units requires great effort and much time; and, recommendations require the farm unit to make two 'shock' commitments - the new process and borrowing money.

In France advisory work was carried out by the government until 1959. Since that time agricultural advisory work has been carried out:

". . . with the participation of farmers freely grouped together to carry out, on their own responsibility, programs drawn up for dissemination

of agricultural knowledge. Agricultural advisors shall implement programs under direct authority of such groups."

Groups approved by the Minister of Agriculture receive government subsidies for the remuneration of such advisors. Their effect was reflected in 1966 in government consideration of development programs put forth by these groups.

The O.E.C.D. Director for Agriculture saw the following picture of farm unit operators in 1980. The education gap between advisor and farm unit operator will decrease as the education level of the latter increases. They will have a more business-like attitude. The farm unit will specialize in one or two commodities only. And the farm unit will have abandoned part of its power for independent action especially in marketing. The Director also sees a new regional environment with increased trading centre rationalization.

All of the foregoing indicates that other countries are facing many of the same problems as Alberta. The approaches these countries take to solving these problems should be monitored, allowing for differences in history, political structure, and type of agriculture. The concept of data banks with world-wide information inputs has definite merit in helping meet farm unit wants.

(b) A National Perspective

The Task Force, in constructing a 1990 model of agriculture, has projected present trends. Here we paraphrase those which have contributed to some of our thinking in regard to extension in Alberta in the next 10 years. Also included in this sub-section, apart from the 1990 model, are some pertinent Task Force guidelines as well as views on credit.

(i) The Task Force states that some farm units will be family units, but all will be businesses, managed rationally and for profit. The commercial units will

be much larger, "not primarily for increased production efficiency, but to structure units that are large enough to afford better management." A clear-cut separation of welfare and commercial farm policy programs will emerge. Some form of guaranteed annual income will be taken for granted. And more agricultural incomes will be earned in the form of wages and salaries as more farm unit workers become paid employees.

(ii) Farm organizations, marketing boards and co-operatives will become larger and more sophisticated in management. They will use better data processing, research and planning techniques.

(iii) The reduction of the farm population will shift the balance of power among farmers, consumers, and tax-payers. The government will be less involved in agriculture. It will reduce farm subsidies and thereby force a much greater degree of independence on the entire private sector of agriculture.

(iv) In addition, the Task Force has set down two major guidelines for governments to follow.

1. ". . . governments should reduce their direct involvement in agriculture thereby encouraging farmers, farm organizations and agri-business to . . . stand more self-sufficiently on their own."
2. ". . . the government should intelligently assist an orderly and planned transition that will encourage agricultural adjustment to achieve the largest possible gains at the lowest possible tangible and intangible costs."

These guidelines are also consistent with the recommendations of our study.

(v) Of particular interest are the Task Force views on credit. The Task Force sees a need for a clearer distinction between ". . . a commercial policy for

agriculture and a rural development policy for low income farms." This means two different agricultural credit policies:

". . . one policy aimed at the needs of the viable or potentially viable commercial farmers; a different policy for the group of farmers where credit is only one of a group of public policies needed for the development of the farmer and his operations."

The Task Force proposes that a Federal Provincial Agricultural Credit Board be created to take responsibility for a joint federal-provincial credit system for commercial farm units. The existing federal and provincial credit institutions would be modified and incorporated into the foregoing Board. Banks would continue to provide operating credit but place a greater emphasis on 'farm management loans' as opposed to the traditional 'security' approach. This federal-provincial agency would be called the Agricultural Co-operative Credit Board. Each borrower would be expected to buy a share in the organization equal to 5 per cent of the value of his loan. The capital stock for the organization would be provided initially by the Federal Government. This would be repaid as the organization developed its own reserves, and in this way it would become an independent agency. The Task Force sees the role of the Board as follows:

"The local co-operative credit associations would present an excellent vehicle for the granting and administration of loans, (and for) the provincial (or regional) programs among the commercial farmers. The provincial government extension agencies would have a natural focus for their farm management extension programs."

Our study agrees very strongly that there is a need to recognize the distinction between 'commercial'

and 'non-commercial' agriculture. We also agree that credit facilities for commercial farm units can and should be streamlined. Commercial farm units, which include managerial and semi-commercial farm units, want streamlined services of all types, including credit. They do not want and in most cases do not need to be tied to provincial government extension programs. They want easy access to extension services of all types and will seek out those services they want on their own initiative.

The other proposed credit organization is the Rural Development Credit Agency. This agency would focus on the credit and management needs of low-income or sub-commercial farm units. Funding would be through the Federal Government with the Province guaranteeing 100 per cent of any losses. The primary objective would be:

". . . to develop a credit system which would supply credit on suitable terms and conditions to small and low-income farmers who have no other source of adequate financing available to them."

To ensure a minimum of duplication in the credit field the Task Force says that:

"The Agency should count as its success, those loans and assistance which result in a farmer graduating to commercial credit terms."

In other words, low-income farm units should be 'promoted' to the Agricultural Co-operative Credit Board.

The Task Force sees the program as being co-ordinated with other policies ". . . designed to develop and rationalize the structure of agriculture and rural services." The Rural Development Credit Agency is to be designed ". . . explicitly to assist those who have the potential to do so, . . ." which could include part-time farm units.

In terms of our study the Rural Development Credit Agency will concentrate solely upon the 'emerging' farm unit.

Co-ordination of lending activities with other policies designed for this group is stressed. Provincial extension and A.R.D.A.-F.R.E.D. agencies ". . . would also have the opportunity to make an effective use of credit as an instrument for farm development programs." The Task Force sees the possibility of providing intensive management training programs and supervision along with the necessary credit.

Our study agrees that 'emerging' farm units require credit facilities which are different to those provided for 'commercial' farm units. We do not feel that credit need be or should be tied to participation in extension programs. A forcible tie is a negative influence. The 'emerging' farm unit is where agricultural extension efforts will be concentrated. An emerging farm unit which is receiving extension advisory assistance will be a better risk anyway than one which is not. Compulsory participation in extension/credit programs should not be required.

5. MODIFICATION OF EXISTING COMMUNICATIONS THEORY

"An Agricultural Society should serve a district with a radius of at least nine miles."

- Alberta Department of Agriculture
Annual Report
1909

From 1954 to 1966, many research reports were written regarding communications theory in a commercial agriculture context applying to rural neighborhoods. From 1966 on there is an apparent gap in such original writings. But most of the prior 12 years of theory is being utilized by extension departments and is the basis behind farmer surveys discussed in the next section of this chapter. The theory has evolved considerably through the contributions of many. But it has become known as the 'Diffusion Theory' or 'Iowa Diffusion Theory' because the majority of the researchers were identified with Iowa State University.

Chart 4-2 attempts to synthesize the Iowa Diffusion Theory and add some general communications theory as we have interpreted it in an agricultural context. The Diffusion Process and the Filtration Process (as we call it) present theories of how information is disseminated.

The Filtration Process suggests that innovative ideas pass through a hierarchy of individuals who filter out or screen those with which they are not in agreement. The result is a narrowing of the information flow in that some innovative ideas do not filter down to the 'average' farm unit operators.

The Diffusion Process suggests that innovative ideas are passed through a hierarchy of individuals who pass them on until they are adopted by all farm unit operators. The result is a widening of the information flow in that all innovative ideas are dispersed or diffused among the entire community.

These two processes appear somewhat in conflict then, in that one restricts the flow of innovative ideas and the other

widens the flow. But they are compatible. They both operate at the same time.

The Filtration Process is concerned with the 'social acceptance' of information: the number of ideas which reach a farm unit. Innovative ideas are subjectively evaluated in terms of opinion, emotion, attitude and belief by all categories of farm unit operators. The 'influential' farm unit operator may well be a 'flying farmer', wealthy, a good manager, an innovator and away from the farm unit at conventions part of the time. The 'opinion leader' cannot be easily distinguished from his neighbors but they probably turn to him without realizing it. He picks up ideas from the 'influential' farm unit operator. The 'average' farm unit operator picks up ideas from the 'opinion leader.'

The Diffusion Process is concerned with the 'intellectual and practical use acceptance' of information: the number of farm units which **one** idea reaches. It applies to innovative ideas which are recognized as being good. Innovative ideas pass from 'innovator' farm unit operators eventually to 'laggard' farm unit operators. Each farm unit operator (in any category) goes through an 'adoption process.' This 'adoption process' starts with awareness and goes through interest, evaluation and trial stages before adoption of the idea takes place. New ideas are diffused until they pervade the whole agricultural community through farm unit operator communications with other farm unit operators.

Both of these processes assume that information is disseminated in community or neighborhood self-contained units. For instance, the Diffusion Process is assumed to work more rapidly in 'modern' communities and more slowly in 'traditional' communities. But is communication bounded geographically today? Do the groups of individuals in both processes still communicate in a geographical setting?

We suggest that now communication in agriculture is moving along commodity lines not community lines. If one accepts a future view of commercial agriculture which involves specialization and integration along commodity lines, witness the broiler industry, then 'across the fence' extension on a neighborhood basis is irrelevant. Already the better hog or poultry and now beef producers travel to the better seminars to talk to their peers. They have the resources and desire to do so. Within this commodity group there may be 'influentials' and 'opinion leaders' and 'recipients.' But in his community, the 'influential' may be so advanced and specialized he cannot 'talk shop' to his neighbors who are in other lines or at other scales of endeavour.

A few extension workers and a few farm unit operators do not like this concept. Some got very emotional about it when our study team introduced the concept, e.g., "a flying farmer is a playboy farmer." The main rationale for the emotion seemed to be nostalgia for the old social community encompassed by one hour's travel in yesterday's terms. With the advances in physical transportation most farm unit operators have adjusted to the ramifications of one hour's travel representing 40 to 60 miles. The advances in electronic communications have broadened the horizons of their 'communities' even further.

All of the foregoing is once again, in a commercial agriculture context. Commercial agriculture now and in the next 10 years involves managerial farm units. These managerial farm unit operators have really formed commodity peer groups. Commodity peers are those farm unit operators anywhere in the Province or in Canada or in the world who are in the same specialty and have similar problems at similar scales of operation with regional differences in climate and geography being noted. They meet at conventions, on courses, and travel considerable distances to see one another.

Two groups of managerial farm unit operators can be distinguished within commodity peer groups. The top commercial category is composed of 'multi-dimensional' farm businessmen. Such a

man is broader in his travel, outlook and interests than the majority of his commodity peers. The regular commercial category is composed of 'linear' farm businessmen who look to the multi-dimensional farm businessmen for guidance within the commodity peer group.

With the foregoing in mind, all of the processes and classifications in Chart 4-2 still apply. But they apply in a commodity peer group not a community or neighborhood context. Neighbors who formerly initiated the adoption process 'across the fence' are now being replaced by commodity peers.

Commodity peer groups are mobile and will move to the source of information or are responsive to Province-wide communications hook-ups. They increasingly require speedy access to a variety of up-to-date data sources.

6. PREVIOUS 'FARMER SURVEYS' IN ALBERTA

We did not intend to examine every 'farmer survey' carried out in the Province. But, our study team read enough of them to ascertain the relevant points which each one seems to reinforce. Four surveys will be discussed in regard to findings relevant to our study.

1. The 'Doscher Report' more formally referred to as the "Survey on Farmers' Attitudes" sponsored by the Farmers' Union and Co-operative Development Association: 1963.
2. The 'Dent Study' or "The Sources of Agricultural Information Used by Farmers of Differing Socio-Economic Characteristics": 1968: a thesis for the M.Sc. in Agriculture degree of Bill Dent, now District Agriculturist at Two Hills, the site of his study.
3. The 'Calpas Study' being a quick reference to "A Study of Current Problems and Trends Relating to Agricultural Extension in Alberta": 1967: a thesis for the M.Ed. degree of John Calpas, now Regional Agriculturist at Lethbridge.
4. The 'Wismer Survey' or "Innovativeness and Other Characteristics of Alberta Farmers Related to the Viewing of An Instructional Television Course for Farmers": 1967: a thesis for the M.Sc. in Agricultural Journalism degree of Warren Wismer, Head, Information Branch, Extension & Colleges Division, A.D.A.

(a) The 'Doscher Report'

The Doscher Report reflects its purpose of establishing the relevancy of farm organizations. Nevertheless, two findings are relevant to our study.

1. Different age and education levels did not affect survey conclusions. Dent and Wismer also found this to be true.

2. Community needs did not appear to unify farm unit operators. Their comments indicated that they view the community in 'physical' rather than 'human' terms. This has relevance to extension in that programs do not have to be community-centred but could be based on commodity peer group lines.

No aversion to using credit was found. Only 4 per cent of farm unit operators would not use credit at all. This attitude has relevance in further discussions on credit later in this chapter.

Other relevant findings were that solutions to betterment were in areas beyond the control of the individual. And that a majority of farm unit operators do not see professional extension services as the best source of ideas generally.

(b) The 'Dent Study'

One must be careful in generalizing from findings in the Dent Study as it dealt with farm unit operators in the County of Two Hills only. Information seeking activities were investigated by classifying farm unit operators as being 'seekers', 'receptors; and 'non-seekers' of information. These classifications have applicability to the types of farm units devised in Chart 4-1. Managerial and semi-commercial farm units are generally information 'seekers' or can be termed 'information aggressive.' The emerging developing farm units are generally 'receptors.' They need training in how to seek information. The majority of the adjusting-out developing farm units and country residents are 'non-seekers.' The information 'receptors' and 'non-seekers' can be termed 'information passive.' The 'adjusting-out farm units need training in how to seek information in non-agricultural areas.

Dent found that age, marital status, family size, year's of farming, years on present farm, amount of off-farm

employment, and enjoyment of farming are not associated with frequency of use of a greater number of information sources. But farm size, cultivated acreage, market value of farm business, and gross farm income were all found to be associated with frequency of use of a greater number of information sources. These findings were confirmed as being generally applicable by the other studies.

(c) The 'Calpas Study'

The Calpas Study essentially reflects the attitude and outlook of the farmer most frequently contacted by the D.A. This farmer is probably the 'regular commercial.' Many D.A.'s are frank to admit that they have little if any contact with the top or bottom segments of the farm unit spectrum. However, Calpas' farm unit operators did represent all regions of the Province and were in proportion to the relative importance of commodities produced in Alberta.

The inferences which can be drawn regarding farm unit operator opinion in 1966-1967 are that:

1. external problems beyond their control have been "the culprits" in the past such as the cost-price squeeze, labour shortages, and the lack of credit;
2. the successful farmer has concentrated his attention on technology with some planning and economics to attain his position of success; but,
3. willingness to adopt new ideas, the seeking of information plus more economics and more planning (all the cerebral tasks) will win out in importance in the success formula of the future. Merely relying on 'hard' technological data such as cultural, husbandry and production practices will no longer be sufficient.

These views indicated the directions farm unit operators want in future extension programs.

The future extension emphasis to emerging farm units should probably be on methods of defining problems, searching for data, analyzing the data, and making decisions under uncertainty. Although further argument will be built, it is not too early to introduce at this juncture two basic approaches our study recommends for the future:

1. THE ONUS WILL BE ON MANAGERIAL FARM UNITS TO TAKE THE INITIATIVE IN SEEKING INFORMATION.
2. THE ALBERTA DEPARTMENT OF AGRICULTURE EXTENSION FIELD FORCE HAS A FULL-TIME LONG-TERM TASK TO UPGRADE EMERGING DEVELOPING FARM UNITS TO MANAGERIAL FARM UNIT STATUS, WHEN THEY TOO WILL BE 'CUT LOOSE.'

If these points sound drastic, it should be noted that the A.D.A. is already moving in this direction. In the guidelines for A.D.A. assistance to farm unit operators in regard to farm management tied to CANFARM, an operator will only receive assistance for 3 years; then he is on his own. Our study group has merely broadened this approach across the whole spectrum of agricultural subject matter.

(d) The 'Wismer Survey'

The Wismer Survey involves testing the effectiveness of TV as an agricultural extension medium. In this regard, it has a narrow purpose. However in evaluation results, Wismer also checked certain agricultural communications theories, principally those concerning sociologically defined neighborhoods in terms of differing rates of adoption of ideas. The latter refers to the 'Diffusion Process' dealt with earlier. (Our study group feels that discussing rates of idea adoption by geographical farm neighborhoods is not as relevant as discussing rates of adoption of ideas by members of commodity peer groups.) District Agriculturists did the interviewing as they did in the Calpas Study.

The Wismer Survey centres around the January 1967 series "This Business of Farming" which appeared Province-wide on C.B.C.-TV. While the prime emphasis is on TV and this particular series, the correlations among viewing, usefulness, regionality, socio-economic characteristics, innovativeness and the use of other media has relevance from the standpoint of our study.

Television is available to most of the farm units in Alberta; 86.7 per cent of the farm units in the sample had television sets. Of these, 38.7 per cent saw some of the series and about three out of five farm unit operators rated the series as quite useful or very useful.

Of any of the 'farmer surveys', Wismer's draws conclusions most pertinent to the electronic communications aspect of our study. Wismer concludes that an instructional TV series does attract farm unit operators who have the economic ability to change. Similarly farm unit operators at the other end of the scale may not view because more information without the economic ability to change does not help. Wismer also found that the low income farm unit operators who did watch the series rated it more useful than high income farm unit operators. Wismer speculates that farm unit operators with low education and income levels found the series more suited to their needs and therefore, more useful. The majority of farm unit operators rated the series useful because it confirmed some of the things they were already doing. The usefulness of the series was also found not to vary significantly in different regions of Alberta despite the variety of differences among regions.

Wismer also makes some observations regarding future television series. They must take into consideration two broad categories of farm unit operators with different programming needs. There are those which will remain in agriculture and have primarily production-oriented economic

problems. And there are those which are or will be leaving agriculture and have more problems of a social nature. The Wismer Survey indicates that the latter group can also be reached with television programs. To quote the survey directly:

"Perhaps the solution is to have a program in the series suited to their specific needs or to develop special programs for them on local stations."

(e) Additional Ideas Arising Out of the Four Studies

It appears that information seeking has a strong relationship to economic ability to act. Such a relationship partly explains why D.A. and other information agents have little contact with low income farmers. It also suggests that credit and extension programs might be tied for those farmers in the 'emerging' farm unit category. Finally it suggests that the 'adjusting-out' farm units need an entirely different type of information directed at them.

If age, marital status, family size, years of farming or amount of off-farm employment do not influence frequency of use of a great number of information sources, then the range of candidates that can be reached for agricultural training or adjustment retraining is wider than many would think.

7. OUR DIALOGUE WITH FARM UNIT OPERATORS ON THEIR WANTS

"The farmer is no longer engaged and solely interested in the production of crops; he has become a businessman, as deeply interested in marketing problems as in the problem of production."

- Eaton's Farm News Service,
Approximately 1930.

Our study can only fully discuss and evaluate the extension process if the viewpoint of the farm unit is considered. One can get a mirror-image of the farm unit viewpoint through previous studies and people working in extension. But midway through the study we found that the farm unit viewpoint was not coming through. However, it was not possible to do an in-depth, fully-structured, statistically-valid survey of farm unit opinion.

We do not wish our study to be classified by farm units as being 'ivory tower.' Thus, we talked with Alberta Wheat Pool, Delegate Advisory Committees in each of the seven A.D.A. regions of the Province. We met with 70 farm unit operators ranging from emerging through top commercial. Their views are contained in this section.

We were able to get the views of only a few low income farm units. As explained in Chapter 1, the emphasis in our study is placed upon commercial agriculture. Our suggestions on farm unit adjustment and on regional development are tentative because of the need for further research. Both of these issues require separate major study.

The views of farm unit operators have been categorized in regard to information search attitudes, awareness, credibility and practicality gaps, and changes in community and region. These views are important not in the static setting sense of having awareness of the fixed state of subject matter knowledge at a point in time. But they are important in the dynamic

setting of agriculture in Alberta. They are concerned with the level of conditioning to accept change; the awareness of being in a state of transition in terms of a rationalizing industry; the degree of being open to new approaches, organization structures, and communications devices; and the state of preparedness for 'future shock.' If these levels and degrees of awareness can be ascertained, then programs can be designed in co-operation with these farm units, instituted in the right climate of acceptance, and carried out to successful conclusions because farm unit 'wants' have been recognized.

(a) Information Search Attitude

(i) Information Sources

From our meetings with farm unit operators; from the Doscher, Dent and Calpas Surveys; and from other sources, it is apparent that mass media including radio, television, magazines and newspapers are the primary sources of agricultural information to farm units.

Radio is listened to mainly for market price quotations. Local stations and commentators are favored. Radios in cars and trucks and even tractor cabs are used frequently.

Television has been dealt with in the previous section, particularly the 'Wismer Survey.' Almost all our farm unit operator contacts had seen all or part of the TV series "This Business of Farming." Almost all of them were disappointed that the series was not continued. They also lamented the lack of agricultural programs and poor time scheduling.

Most operators regularly read the Canadian 'farm press': the Western Producer, the Cattleman, The Country Guide and the Free Press Weekly.

Contact with university and agricultural and vocational college people is minimal outside of Feeders' Day and the Kinsella Ranch Field Day. Some dialogue

occurs with C.D.A. researchers where Research Stations are located. Technical research papers are not felt to be beyond them provided they can obtain some clarification from the researcher. Concern was voiced regarding the practicality of some research conclusions in terms of capital and operating costs necessary for implementation. Some managerial farm unit operators by-pass the A.D.A. extension system to talk directly with the original information sources. They do not care about the division of responsibilities for extension among governments, universities and industry. They do not feel the need for interpretation of research results by 'wholesalers' and 'retailers.'

The most frequently and favourably mentioned agri-business extension source is the "Grain Grower", the loose-leaf advisory service binder published by the United Grain Growers (U.G.G.).

The favoured locations for receipt of extension information are the auction mart, purchase co-operative and feedmill in regional growth centres. In these three locations, the main information source is dialogue with particularly knowledgeable sales people and commodity peers. They prefer private interviews with researchers over brief open-forum contact at overcrowded 'field days' at which too many commodity groups are being covered.

A great concern in regard to information seeking is WHERE TO FIND THE TIME. Time to carry out physical work on the farm unit; time to read pertinent literature; time to find and train help in order to free time to read; time to attend courses and conventions with commodity peers. Narrow profit margins mean lack of an adequate budget for hired labour which means more

operator time involvement with physical work on the unit: no time to both drive the equipment and do managerial planning. One farm unit operator wondered if it was possible to find enough time to keep up with new information. Another operator's reply was,

"You have to make the time!"

(ii) Use of D.A. and Specialist Services

Farm unit operators tended to either use the local D.A. fairly regularly or not at all. The aggressiveness and practical experience of the D.A. were individual characteristics mentioned by those who have D.A. contact. Few operators had the opportunity to dialogue with an A.D.A. 'specialist.' Those that had were often steered by the specialist to commodity peers to see ideas in actual use.

Those farm unit operators who did not use the local D.A., did not for a variety of reasons: improved transportation facilities increased their accessibility to other information sources; much of the information available from the D.A. office was out-of-date; and some D.A.'s lacked enough practical experience. In some cases, contact with the D.A. office meant picking up literature from the office secretary.

(iii) Learning from Commodity Peers

Farm unit operator comments supported our belief that much information is being passed along on a commodity peer group basis. Comments regarding distance indicated the breaking down of geographical information barriers. Farm unit operators are travelling further to see comparable or larger operations and to exchange ideas. Typical remarks were:

". . . distance doesn't matter any more"

and "I can think of half a dozen farmers who have travelled over 10,000 miles before making major decisions."

The innovator in the commodity peer group is highly regarded as an information source because the innovator "lays his money and his judgement on the line." But the 'openness' in the industry may be changing. "Large feeders are not telling anyone some of the things they are trying." This is not yet a widespread practise or concern. However it is a considerable change from traditional attitudes.

(iv) Paying for Extension Services

Farm unit operators have been conditioned to receiving free information from government and university extension services. However, they feel that a lot of the free information is not relevant, out-of-date, and not timely. There was generally a very cautious approach taken toward incurring additional costs by paying for extension services in light of existing tight cash flow in farming. But "worthwhile" information was felt worth paying for.

(b) Awareness of Farm Unit Operators

Farm unit operators generally take a very practical approach to agricultural problems, both general problems and those specific to their own operations. But in the area of future planning, despite there being 'awareness', there is generally a lack of this practicality. Short run problems seem to place a 'block' in the path of thinking too far into the future even though none of the operators disputed the need for long-range planning. Some were extremely pessimistic about remaining in agriculture long enough to have to worry about long-range planning. Others said,

"Why plan? Government information concerning market prospects and quotas is not reliable."

None of the operators had related the many pronouncements that the size of farm unit would increase to their

own circumstances. None were looking for suitable land in their area. Yet all agreed to a man that the scale of farm enterprise would increase. All appreciated the economic aspects of rationalization and adjustment. No one was 'bucking the inevitable.' However when an operator was asked specifically,

"Who will be adjusting?"

the answer was,

"Not me, it'll probably be the guy next to me."

Awareness of new communications techniques and 'hardware' is minimal. However, operators express a willingness to try electronic, two-way communication if it will speed the flow of up-to-date, accurate information.

There is a lack of awareness of the decision-making role of the farm unit operator businessman. A very prevalent attitude is that government or university or agribusiness or a consultant has to come up with the right answers. They do not see themselves as analyzers of information but see the decision embodied for them in the information. A typical comment is:

"National information is bad -- too many conflicting opinions."

Here it seems appropriate to interject an opinion of our study team. The farm businessman/decision maker's role is to analyze and choose from his own ranking of "conflicting opinions" or alternatives. Awareness of this role will occur in agriculture as it has in other industries. As the student businessman begins to understand that "decision making under uncertainty" or "shades of grey, not black or white" are an immutable part of business life, agricultural or industrial, then he will begin to see a so-called "expert" as a resource person and not a final decision maker.

(c) Credibility and Practicality Gaps

Our farm unit operators did not see a major credibility gap in regard to agri-business information but they felt that there was a major one where government market forecasting was concerned. Universities and the A.D.A. extension service were 'credible.' However, both had wide 'practicality' gaps but for different reasons. The universities were accused of a "non \$ and ¢" approach while the A.D.A. used out-of-date information. Research stations were lumped with universities but dialogue seemed easier with the former, that is, the gap could be closed.

The odd operator railed against the agri-business or government/agri-business complex. But most adopted the metropolitan businessman's approach to an array of input suppliers: "the onus is on the businessman to screen the good from the bad as regards product claims." The justification for government extension or research or university research because "agri-business is irresponsible" is not a complaint of the farm operators to whom our study team talked. It is best summed up in the following good natured comment:

"Agri-business is interested and out there, although a 'few grains of salt' could be used."

(d) Changes in the Local Community and Region

A quotation from the Report of the National Advisory Commission on "Rural Poverty" (U.S., 1967) states:

"Developments in transportation and communication systems along with the expanding network of roads and highways have confronted many villages with competition from larger towns and cities. The result has been an extension of the trade areas of the larger towns and cities into areas once served by the villages. The same developments have made it possible for rural people to commute farther to jobs in towns and cities In varying degrees rural areas are now parts of larger economic communities with a dominant town or city at the center, the community encompassing several counties. The linking of rural to urban areas is continuing and indeed, the rural-urban distinction is becoming meaningless In short, country, town and city are one. They cannot be separated."

In our talks with farm unit operators we found a high degree of awareness regarding changes in regional communities. But it is a remarkably positive and unemotional awareness. Where nostalgia for the small community of yesterday still exists, it centres on social not economic activities. The Saturday night dances, card parties and so forth are remembered with regret. The advantages of regional growth centres with well-stocked purchase co-operatives and other stores are welcomed. The advantages of greater chance for wider contact with commodity peers at a regional growth centre auction mart or feedmill or elevator are welcomed also. The loss of small community equipment dealers is generally bemoaned.

Most consider a town of 2,500 or greater population as the minimum size today for being a viable trading centre. Establishment of a local co-operative or co-operative branch seems to be one way they earmark a town as 'growing.' They shop at these regional trading centres for most of their food, almost all of their clothing and household supplies, most of their agricultural supplies and most of their 'big ticket' items although cars are sometimes bought in major metropolitan centres. (Kent Harrold, a farm unit operator in the County of Lamont has quantified these qualitative opinions in a study of his region.) Variety and price are the key factors. The trading radius of the regional centre appears to be one hour's driving time, i.e., about 40-60 miles. This can be compared with previous distances which were less due to poor roads and slower modes of transportation.

In regional trading centres, there is a trend to town businessmen owning farm units nearby, not unlike the hobby farm syndrome prevalent in metropolitan centres. The major difference seems to be one of scale, i.e., units available in the region approach commercial size. This 'interlock' also occurs with respect to off-farm employment. Many farm unit operators have wives working in banks, co-operative

stores, schools and hospitals in regional growth centres. One operator living on the highway near a regional growth centre watches with interest the 8 A.M. and 5 P.M. traffic flow of farm operators into and out of the centre delivering and picking up their working wives.

All would like to see industry decentralized into regional Alberta but none saw this developing rapidly or artificially. They had a good grasp of industry's needs for skilled labour, cultural amenities and its concern regarding transportation and utilities. Their realism exceeded that of many overly enthusiastic Chambers of Commerce.

The general attitude was one of wanting to know more about and how to control community change. Most farm unit operators could see advantages and disadvantages of farm-land sub-divisions and the movement of commuters into the region. They were not 'bucking the trend': they merely wanted some background in how to go about sound future planning in the region.

8. THE FARM UNIT AND COMMUNICATIONS

"Communication, in the conventional sense, is difficult under any conditions We can share environments, we can share weather . . . but communication takes place only inadequately and is very seldom understood."

- Marshall McLuhan

Communication must be effective if farm unit wants are to be correctly interpreted. And communication must be effective if extension programs are to effectively deal with farm unit wants. We have indicated the emphasis that must be placed upon the communication of farm unit wants. Now we will discuss some of the factors which deal with the communication of extension programs.

(a) Television

The first attempt to use television to reach large numbers of farm units was the C.B.C. program, "This Business of Farming." It was first aired in Manitoba in 1962 and then extended to all three Prairie Provinces in 1964. The program consisted of five one-hour telecasts in January. Material came from the three provincial extension services and the three established Prairie universities.

The program was aimed at a broad range of farm units. Viewer acceptance was favourable. However, as Wismer pointed out, TV is more effective when directed toward specific types of farm units. Future use of TV, as for all communications media, must recognize the different wants and needs of all types of farm units.

The characteristics of television as a communications medium must be considered. TV is an emotional medium in that impressions are communicated, although these can be powerful interest generating and motivating impressions. It is not an intellectual medium in that topics cannot be studied in depth by the viewing audience in a short period of time.

TV offers no opportunity for recall, although the newest technologies will allow recall of 'canned' programs by the viewer. To offer the audience all the in-depth ramifications of topics, print media should also be available to complement the TV presentation. Producers of "This Business of Farming" found the booklet which accompanied the TV show to be the essential 'specific information' ingredient: not the show in itself.

Communication via TV requires communicators who 'come across' over the medium. Complete knowledge is required for communications via the in-depth print media. But what is required for effective communication on TV is a 'performer' who can create interest and who can motivate.

The general Alberta public is not particularly interested in agriculture. Therefore, TV stations and advertisers do not make prime time or much of any time available for shows tailored to a small percent of the population. Wismer's comments about directing programs to specific segments of the population, even within agriculture, are valid.

To keep agriculture-oriented programs viable in a commercial market, some TV productions have changed their emphasis in order to appeal more to the general public. The C.B.C. program "Country Calendar" which began as an agricultural extension 'tool' has become an interpreter of regional problems for a general audience. There is more 'third eye' filming of issues such as pollution and conservation.

Television can be an effective extension device. But as commercial TV follows the previous example, specialized agricultural programs will probably have to come from the Province. Alberta and Ontario have already produced agriculture-oriented programs although some have become less specialized in order to appeal to general audiences. For instance, the A.D.A.'s "FACT" (Farm and City Today) on Metropolitan Edmonton Educational Television (MEETA) includes many consumer information topics.

Commercial TV can be used to communicate general awareness to broad segments of the population. An agriculture Educational Television Network (E.T.V.) would be ideal for directing 'awareness' programs on change, upgrading and adjustment to all sectors of agriculture. It would also be extremely expensive. But it may be possible to produce TV shows directed towards the wants and needs of a particular segment in a particular region. Local television transmission facilities could then be used. Eventually Alberta may be spanned by a grid of E.T.V. towers in which case agricultural programing could become a segment of general E.T.V. programing.

Television has even greater extension applicability at the group level. The use of $\frac{1}{2}$ -inch videotape recording has great potential in agricultural and regional development work. Groups of farm unit operators can utilize these compact portable TV filming units themselves to discuss their wants and supply feedback to extension field workers.

Television can also be a useful extension tool at the individual level. The video cartridge or cassette, to be played by the farm unit operator on his own TV set, will be a well established communications device by 1980. Prepared programs will be excellent instructional extension devices. The technique will have applicability to all types of farm units.

Thus an interlocking of mass, group, and individual TV communications programs will be needed in the next 10 years. For farm adjustment and regional development programs, communities and neighbourhoods will have relevance as per existing communications theories based on geographic considerations. For managerial farm units and those 'emerging', the commodity peer group basis, suggested by us in an earlier section of this Chapter, will be the basic audience factor. The geography

will thus be regional or provincial. Further, such a farm unit audience will be captured only by the best format of the best E.T.V. show produced. This means use of the best 'communications group' that can be assembled in terms of both staff and facilities.

(b) Radio

"If Winter evenings on the farm seem lonely and cheerless, by all means invest in a good radio set."

- Eaton's Farm News Service,
Approximately 1930.

Radio was a very effective extension tool which met the needs and wants of relatively isolated regional communities from 1930 to 1960. In the early days of radio it was possible to take courses from the Radio Farm School. Technology was the main theme and radio became the 'audio arm' of various provincial government extension departments across Canada. The farm population was a greater percentage of the total population and agricultural broadcasts could compete with other programs for prime time.

Programming economics have dictated that as agricultural population decreases and agricultural specialization increases, radio (and TV) can no longer provide detailed agricultural information programs. The interested audience segments are simply too small for widespread information dispersion by mass communications. From relatively straight-forward extension of information, agricultural broadcasts changed their emphasis to commentary. Now it appears that the emphasis has shifted again, this time to a 'broad public appeal' stage. For example, the C.B.C.'s Farm Radio and Farm TV Departments have been amalgamated into the Agricultural and Resources Department. The greater programming scope in the 'resources' area increases the potential audience. The amount of 'hard' information the farm unit gets is consequently reduced.

Radio is only one type of audio communication just as television broadcasting is only one type of video (and audio)

communication. Audio extension communication by radio to-date has been restricted to programing designed for mass audiences. But audio communication can be extended to group and individual audiences similar to video communications.

Group and individual needs can be serviced with existing audio communications technology. Audio cassettes and cartridges are being used in playback machines which can be portable. There is presently a medical information service which provides busy doctors with audio tape summaries of medical journal articles. This could be done for agricultural information quite inexpensively. Farm unit operators could listen to such tapes while at home, in their car or truck, or in the tractor cab. Groups could also buy or rent such tapes and centre discussions around them. By servicing groups and individuals, extension agencies, both public and private, would be able to make the information specialized enough to appeal to any farm unit. There needs to be an 'audio arm' in any future 'extension communications group' to turn out cassettes and cartridges.

(c) Print Media

"The rapid change which has taken place in the rural community during the last decade has called forth a new type of farm paper."

- Eaton's Farm News Service,
approximately 1930.

Print media are unequalled for referral, analysis, depth, and appeal to the intellect rather than the emotions. Recent mergers of publishing houses with recording and broadcast companies definitely point the way to a future of complementary visual and print educational materials.

General farm papers and magazines, sold to an advertiser on the basis of mass circulation, have declined considerably from the 20 or so which published in the four western provinces around 1930. Recent postal increases have hurt the general publications but rationalization was probably inevitable anyway. The remaining ones appear viable. Our farm unit

operator dialogue indicated a desire to continue buying and reading the general farm press. However, the major trend is toward specialized publications which appeal to commodity peer groups.

In the future general farm papers and magazines will fill a farm unit want of providing broad general coverage of agricultural news. The specialized journals will become increasingly sophisticated. Agri-business either publishes or pays for most of the advertising and will direct these publications at commercial farm units.

Print communications are also published by private and government research and extension agencies. The volume of print information is expanding very rapidly. If these data are to be effectively disseminated to farm units then systems must be devised which allow rapid mass assembly and rapid mass retrieval of print information. Farm units, particularly the 'commercial' categories, want easy access to as many information sources as possible. Sources of information should be as broad as possible. Access to the information by farm units should be as easy as possible. Thus we begin to get into the area of data banks.

(d) Multi-Media Communications

There are a number of communications devices, that are presently available, or will be shortly, which have applicability to extension in Alberta. To effectively communicate with commercial farm units at a sophisticated level, mass communication is not effective. Communication must be on a commodity peer group basis. This requires communication on an individual or group basis, instigated on their initiative.

Educational Telephone Network (E.T.N.) is a communications system currently used in the U.S. The technology exists for its installation in Alberta. Each installation would consist of interconnecting telephone lines and amplifiers which

allow farm unit groups to participate in a discussion with other groups or researchers or extension people throughout the Province.

Another useful communication device plays a cartridge which consists of a film strip containing up to 250 slides with synchronized sound. It is portable and relatively inexpensive. It does not have the flexibility of video cassettes but is available now. It can be used by farm units or extension field workers in addition to the films and slides currently in use.

Discussion of the farm unit has not taken place in the same Chapter as the discussion of communication by accident. The farm unit is central to the topic of communication just as it is central to the topic of extension. There must be effective communication from farm units regarding their wants. There must be effective communication to farm units to meet these wants. For there to be effective extension there must be effective two-way communication. We need any and all electronic communication devices which can aid extension effectiveness in light of (1) the 'information explosion' and (2) the number of farm units which have to be assisted to 'emerge' or 'adjust out' over the next 10 years (roughly 15,000 of the former and 18,000 of the latter).

QUICK REVIEW OF ESSENTIAL IDEAS IN CHAPTER 4RATIONALE

The C.D.A. and Task Force predict a drop in number of farm units in Canada from 430,000 in 1966 to 315,000 in 1980. Using the C.D.A.'s trend projection techniques, we show Alberta farm unit numbers dropping from 69,250 to 50,836 over the same period. Using \$10,000+ annual sales as a commercial farm unit minimum, the numbers in this category must increase from 17,992 in 1966 in Alberta to 32,535 in 1980. Ignoring the effect of upward shift because of any rise in output prices, there are 14,543 farm units to be upgraded to commercial status. Assuming these all come from non-commercial (meaning less than \$10,000 annual sales), there will then be 18,414 farm units which will be adjusting-out of agriculture.

In actual fact, the annual sales \$10,000+ commercial category is too low as a cut-off in terms of straight economic viability (adequate return to labour and capital). Many reports we studied show a \$10,000 net income cut-off and capital investment averaging \$100,000. Based on these 'straight economics' guidelines, the adjusting-out figure for Alberta could approach 30,000 units in the next 10 years.

Facing up to change in agriculture requires a reduction in the 'emotionalism' attached to the issue. This does not imply any reduction in 'concern.' The Task Force has effectively dealt with the emotionalism attached to the phrase 'the family farm.' They call it a "farm run by a family." This points to the producing unit, whether run by a family or some absentee owner, as being an entity apart from a family and "a way of life."

Agricultural changes in Alberta are similar to those of Canada, the U.S., and Europe: our Province is not unique.

In Canada, the Task Force Report sets out two future governmental guidelines, echoed in Europe and elsewhere:

1. ". . . governments should reduce their direct involvement in agriculture thereby encouraging farmers, farm organizations and agri-business to . . . stand more self-sufficiently on their own."
2. ". . . the government should intelligently assist an orderly and planned transition that will encourage agricultural adjustment to achieve the largest possible gains at the lowest possible tangible and intangible costs."

Existing communications theory in agriculture centres around the geographic farm neighbourhood and the "Iowa Diffusion Theory." This theory sets out how information is disseminated "over local fences." There is also a Filtration Process by which information is screened in a local context. But, farm neighbourhoods are less relevant today than in the past.

Previous 'farmer surveys' in Alberta, which have been District Agriculturist-oriented but openly so, reveal that farm units:

- have differing degrees of information seeking aggressiveness;
- use more information sources as their financial capability improves;
- do not use more or fewer sources of information because of operator age, marital status, or amount of off-farm employment;
- feel that willingness to adopt new ideas, the seeking of information, and more planning will be the keys to future success rather than the concentration in the past on improving production technology alone.

Our interviews with farm unit operators, from 'emerging' through 'top commercial' reveal that:

- they learn much from other operators producing the same commodity at the same or larger scale of operations and located anywhere;
- they do not need interpretation of research results by information 'wholesalers' or 'retailers';
- they either use the District Agriculturist frequently or not at all. On balance the latter is the predominant category largely for reasons of ease of access to other sources of information;
- they are reluctant to pay for extension services, especially now when cash is tight;
- they see the need for planning but say they cannot because of the unreliability of government data (they want "black or white" answers, not "shades of grey");
- they see the logic of farm unit rationalization but when one asks "who will be adjusting out?", the answer is "not me, it will be the other guy";
- awareness of new electronic communications techniques is minimal but all are ready to give them a try;
- they are more concerned with a 'practicality gap' in regard to research information than they are about a 'credibility gap' concerning agri-business information;
- most are doing their farm and family business in polarized regional growth centres in a 60-mile radius; and,
- they have a positive awareness of changes going on in the regions of Alberta.

All of this is rationale for our following conclusions as to basic approaches which will pervade the remainder of the study.

CONCLUSION

1. To reduce emotionalism without reducing concern, we use the terms 'regional' and 'metropolitan' in place of 'rural' and 'urban.' We stress the term 'farm unit' instead of 'farm' or 'farmer' or 'family farm.' Our farm unit encompasses physical inputs such as land, buildings, and equipment plus managerial inputs which can come from a father and his sons plus a wife handling the bookkeeping. Or it can encompass a professional foreman, his wife and some 'top hands.'
2. Our farm units are categorized in Chart 4-1 as:

Managerial Farm Units: top commercial
: regular commercial

Developing Farm Units: emerging
: adjusting-out

Semi-Commercial Farm Units: large-scale hobby
: large-scale part-time

3. We agree with the Task Force that there should be two types of federal-provincial credit agencies: one for managerial farm units and one for emerging. The first involves consolidation of the many present farm lending agencies into one commercial lending agency. The second involves tailoring credit to the needs of units struggling to become viable. Neither type of lending should force borrowers to go on government extension programs. This is a negative influence. The managerial farm unit seeks its own information sources within or outside of

government. The emerging unit, being counselled by government and other extension advisory assistance, will automatically be a better risk.

4. In Chart 4-2, the Diffusion Process (innovator, early adopter, early majority, late majority, laggard), the Adoption Process (awareness, interest, evaluation, trial, adoption) and the Filtration Process (ideas screened by extension experts, influentials, opinion leaders until they reach average farm units) will in future have applicability in commercial agriculture in what we call 'commodity peer groups.' The old 'across the fence within a local community' type of information dissemination is declining as farm operations become more specialized, integrated, and of larger scale. It is declining as farm unit operators are more mobile and able to meet their commodity peers on courses, on tours, at conventions, and in the farmyard several hundred miles away if necessary.
5. For managerial farm units which are 'information aggressive', the onus will be placed on the unit to seek information. This will free the A.D.A. extension field force from servicing the regular commercial farm unit and enable it to concentrate on upgrading 14,543 emerging farm units -- a gigantic job over the next 10 years.
6. The onus will also be on semi-commercial farm units and country residents to seek out information on their own. For these units and managerial farm units it is important to open up and build up any and all sources of information, including easier access to researchers and information libraries.
7. For adjusting-out farm units, intensive counselling will be necessary. The entry point may be agriculture but the counselling will lead to job and social redevelopment.

8. To assist in the awareness - sensitivity - motivation - action - co-ordination process, extension in Alberta in the next 10 years will need the use of many electronic communications devices as well as face-to-face communication using specialists.

Thus we suggest development of a 'communications group' able to produce mass awareness programs for commercial and E.T.V.; instruct farm unit groups in the use of $\frac{1}{2}$ -inch videotape recording for articulating wants and feedback for extension field workers; and ultimately produce video cartridges or cassettes for use in individual farm unit TV sets.

We also suggest the de-emphasis of mass audience radio broadcasts in favour of a 'communications group' producing audio cassettes and tapes for use in home, car, truck or tractor. Mass radio should be kept for policy pronouncements. Commodity market reports are best accessed by farm units as 'dial-in pre-taped telephone reports.'

Print media will always be necessary for depth analysis of agricultural and regional development information. With the 'information explosion' it will be necessary to develop a data bank to allow rapid mass assembly, retrieval, and dissemination of print information.

Finally, the telephone and the film or slide projector are two communication devices with which we are all familiar but which have new uses untried in Alberta. Telephone 'conference call' lines plus amplifiers can allow groups of farm units and researchers to interact Province-wide. Synchronized sight/sound equipment now can enable farm units and extension field workers to play 8MM or 16MM film strips of slides with sound by means of cassette or cartridge. These sight/sound shows would be produced by a 'communications group.'

CHART 4-1

Types of Farm Units Seeking Information: 1970, 1975, 1980

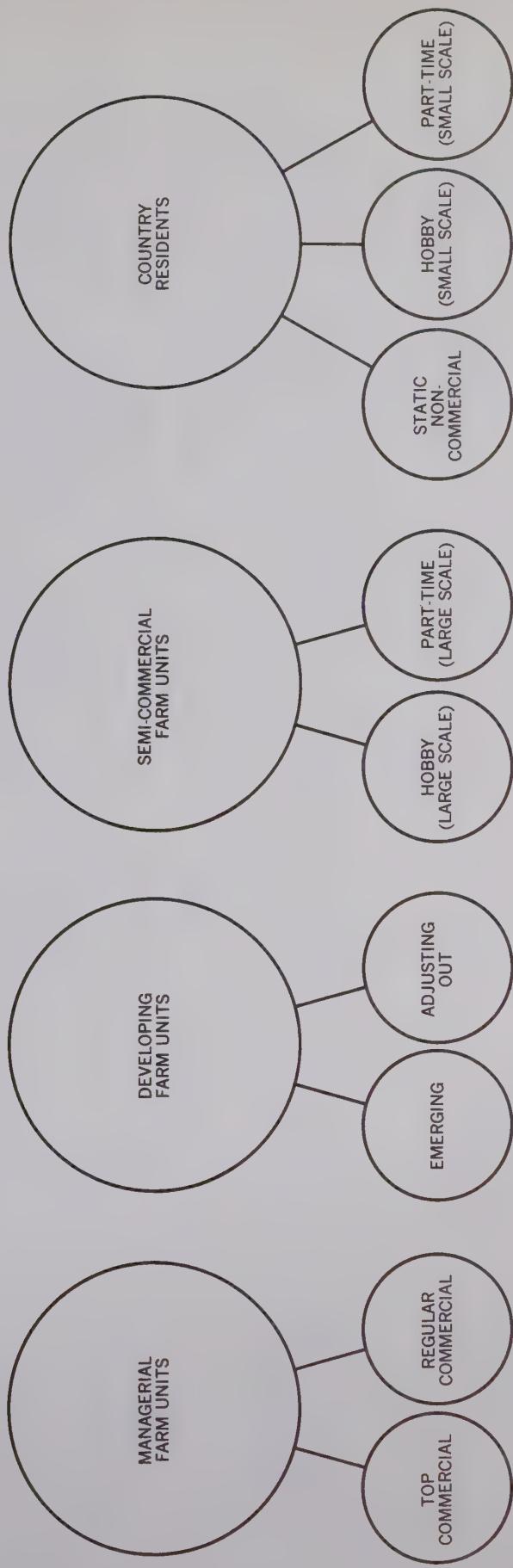
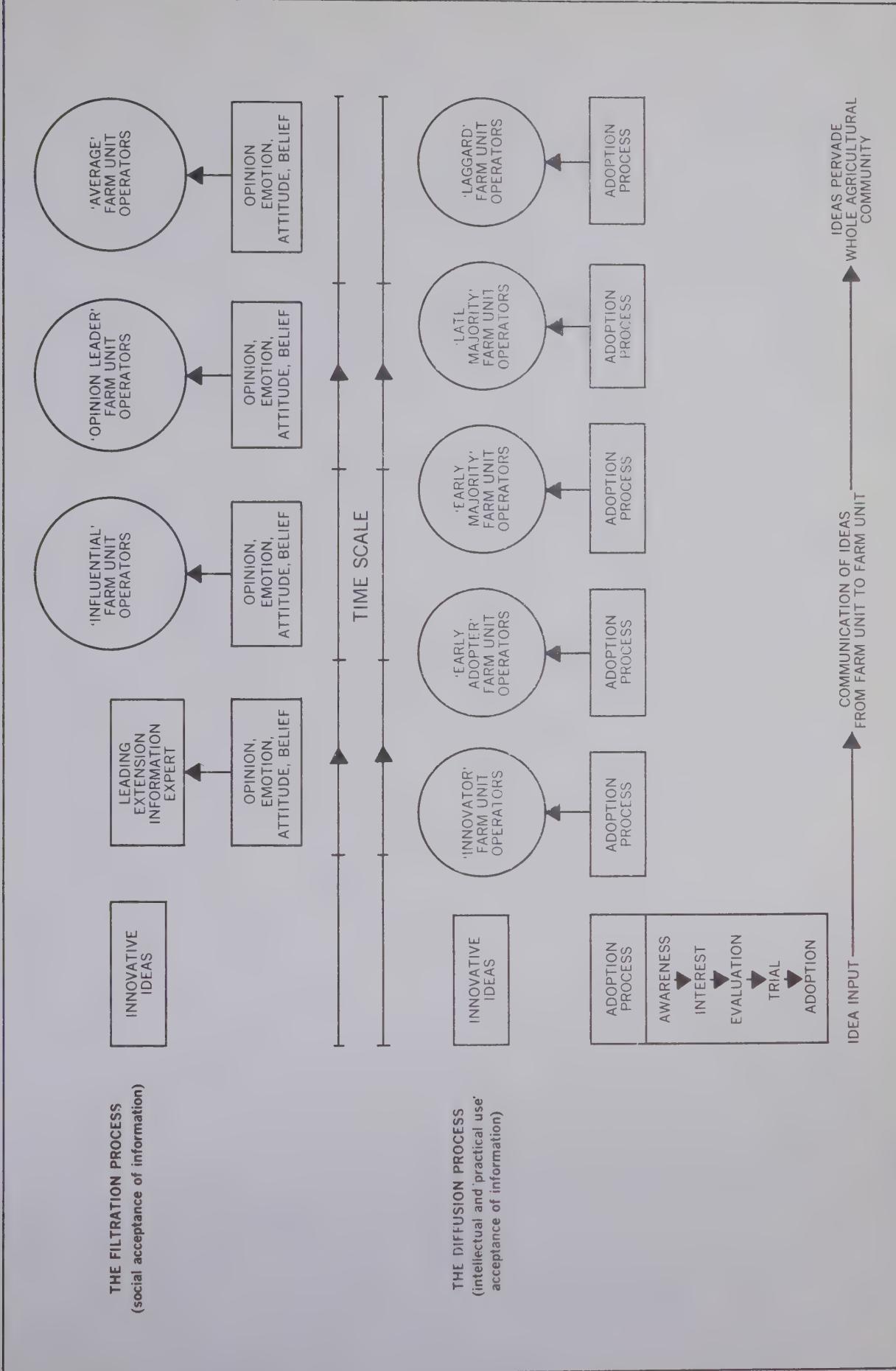


CHART 4.2

Communication Theory in Commercial Agriculture: 1970



Chapter 5

ALBERTA DEPARTMENT OF AGRICULTURE

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APPENDIX 5-1: FUTURE SUBJECT MATTER AND DISCIPLINE REQUIREMENTS FOR EXTENSION WORKERS

Chapter 5ALBERTA DEPARTMENT OF AGRICULTURE

"Nineteen hundred and sixty-nine closed a decade of rapid change in the agricultural industry which included many changes in department policies, programs and services. One can foresee continuance of this and a possible acceleration of these changes into the 1970-1980 period."

- Introduction to the 1969
Annual Report of the Alberta
Department of Agriculture

1. HISTORICAL PATTERN OF DEVELOPMENT OF GOVERNMENT EXTENSION(a) Early Years: 1905-1937

Extension in the early years was provided by various lectures, demonstrations and short courses, summer fairs, demonstration farms, Schools of Agriculture, Farmers' Institutes, Women's Institutes, demonstration trains, and District Agents.

The first five District Agents officially made their appearance in 1916. Their task was to organize and work with boys' and girls' clubs. The Annual Report of 1916 stated that;

". . . it is hoped that this work may be extended in the future so that the agent may give assistance to farmers in the locality in connection with agricultural society work, community centre work, and marketing."

It was also hoped that the District Agent would bring the Department closer to the farmer and to this end he was located "permanently" in a central town and provided with a "Ford runabout." It was observed that

"the District Agent cannot pretend to be an expert on all these various lines, (any problem) but he will have a general knowledge of them and he will be able to confer with specialists of the Department of Agriculture when he is in doubt."

The first District Agriculturist (D.A.) was appointed in 1920. The District Agent had been associated with the Schools of Agriculture and had only done extension between school terms. The District Agriculturists were full-time extension people and were responsible to the Livestock Branch. Their duties involved visiting farmers, making personal contact, finding and solving problems, holding meetings, and assisting in boys' and girls' work.

In 1922 one of the D.A.'s was addressing U.F.A. meetings using lantern slides, films and charts. By 1923 the Motion Picture Bureau of the A.D.A. was producing films for use in agricultural extension work. By 1925 the use of radio began to receive prominence.

(b) 1938-1948

In 1938 an Agricultural Extension Service was created as a Branch of the Department of Agriculture. The main purpose was "the distribution of information." However, "to ensure best results, formation of community organizations to reach country people" was considered desirable.

In 1939 the Agricultural Extension Services Branch was specifically responsible for supervising school fairs, exhibitions, associations, meetings, demonstrations, agricultural statistics, short courses, field days, women's work, and the extension activities of the D.A.'s and the Schools of Agriculture.

The responsibility for the D.A.'s was transferred from the Livestock Branch to the Extension Services Branch by 1942. In 1943 the main function of the Service was reaffirmed as the "distribution of agricultural information." The D.A.'s devoted their "full efforts to the production of essential agricultural products and the farm labour problem." Despite the announced purpose being the dissemination of information, the 1947 Annual Report noted:

". . . a great many times when service - as distinct from extension teaching - has so laden the time of the District Agriculturist that he has almost discouraged of performing his true function."

There was an increased demand for "more farm management - less husbandry."

In 1939 a full-time home economist was assigned to the Extension Branch. The first District Home Economist (D.H.E.) was appointed in 1943 to work out of Stettler. There were five D.H.E.'s by 1944. D.H.E.'s requested that they be supplied with cars since 40 per cent of their time was spent in travel.

The end of the war in 1945 marked the beginning of two important trends in public wants: "buymanship" and "home planning." These both required expanded home economics activity. By 1948 there were eight permanent and two temporary D.H.E.'s.

Communications

Films and film strips were still being used in 1938 although some were not closely enough concerned with Alberta conditions and requirements. However, extension interest in radio increased. Department of Agriculture officials participated in "Farm Forum" and "Junior Farm Forum" program talks in 1939. In 1945 it was recommended that even more attention be given to radio as an extension tool. However, it was noted elsewhere that "individual contact was felt more lasting."

(c) 1949-1959

In 1949 over 130,000 people attended meetings organized by District Agriculturists. By 1950 there were 43 D.A.'s and Assistants staffing 38 offices. Extension work was carried out in the areas of field crops including crop improvement, soil conservation, weed control, crop pests and diseases and horticulture. Livestock extension work dealt with livestock

improvement, marketing and disease control. Dairying concerned artificial insemination, silage production, housing, and record keeping. 4-H Club activity found the D.A.'s responsible for the organization and supervision of the Clubs, discovering and training qualified local leaders, and "frequently assisting with school career talks and discussing educational opportunities in Agriculture with parents and children."

The post-war period caused continued demand for rural housing and family life programs from the Home Economics Division. Activities and staff increased during the period from 13 permanent District Home Economists and 5 summer assistants in 1949 to 20 permanent D.H.E.'s, 3 summer assistants and 5 undergraduate summer staff home economists in 1959. By this time, the Division had clothing and home design specialists. They participated in radio and television programs which advised the public of the Department's activities, trained new staff members, provided the field staff with new information, and prepared and revised print material for the public.

Farm Management

The first Farm Management Specialist was appointed in 1958. The work was carried out in conjunction with the Farm Cost Studies staff of the Dairy Branch.

The activities of the Farm Management Specialist involved visits to the District Agriculturist offices to determine the nature of the farm management problems. Four workshops to upgrade the skills of the D.A.'s were held, farm meetings and short courses were attended, and special publications were made available to D.A.'s.

In 1959 a definite emphasis was placed "on the training and servicing of District Agriculturists in farm economics and

farm management, rather than on contacts with individual farm operators."

'Farm and Home' Concept

Another approach to extension, first mentioned in 1956, was the 'Farm and Home Improvement Program.' D.A.'s and D.H.E.'s co-ordinated activities towards a 'balanced farm' concept of agriculture. In 1957 the importance of 'grass roots' appeal was noted. Farm and home improvement was felt much more likely when the "farm family itself recognizes the need" rather than when urged by the extension worker.

By 1959 the program "Farm Planning", "Balanced Farming", "Farm and Home Improvement", or "Farm and Home Development" as it had been variously called, was still not a major extension effort. But it marked the first instance of any magnitude where the two main field staffs, D.A.'s and D.H.E.'s, worked in conjunction with each other on a specific program.

4-H

The 4-H program demanded considerable time of the D.A.'s and D.H.E.'s. In 1959 it was administered by a Supervisor of 4-H Clubs, with permanent and part-time summer staffs. In that year D.A.'s attended 1,661 4-H functions and Home Economists attended 2,200 demonstrations, lectures, field days and short courses.

(d) 1959-1965

In 1961 there were 44 District Agriculturist offices, twelve of which also had Assistant District Agriculturists. By 1966 there were 50 D.A. offices, seven with Associate D.A.'s.

Extension work was carried on in the areas of field crops, livestock, 4-H, farm management, and agricultural engineering. Extension effort was also directed toward community activities such as P.F.R.A. meetings, Farmers' Union of Alberta, Chambers of Commerce, and planning boards.

In 1962, 'program planning' was applied at the District level. This involved "the preparation of a program and plan of work for every one of the district offices." Once again an attempt was made to introduce 'grass roots' wants into the extension process, this time through local advisory councils. Twelve of these were set up by 1962.

In 1963 the C.B.C. program "This Business of Farming" was in part responsible for a greater emphasis on using television. However, despite a general decline in farm visits and an increase in telephone calls there was no wide-spread adoption of new communications techniques.

There were 20 District Home Economists and two Specialists in 1960. A Home Management Specialist was appointed in 1963 and in 1966 a Food and Nutrition Specialist.

Extension activities in the traditional areas of food and nutrition, clothing and home sewing, handicrafts, and 4-H continued to account for a large portion of the D.H.E.'s time. Consumer spending continued to be the major home management extension area. But increased emphasis was given to the business of the home with respect to records, budgeting, credit, and estates. The Home Management Specialist was appointed in response to the increased demand.

In some areas D.H.E.'s co-operated in Farm and Home Programs with the D.A.'s.

The number of requests for assistance related to farm housing plans far exceeded staff time available. A Home Design Specialist was assigned to Calgary in 1965. The location of Regional Home Design Specialists in major trading centres proved to be justified in that,

"Many people come to the cities to purchase their building materials and furnishings and incorporate an office interview the same day."

Farm Management

In 1960 the Farm Economics Branch was established to consolidate all agricultural economists in the Department in one Branch. The cost studies work of the Branch broadened from dairy work into specialty crop studies in irrigated areas of the Province. A two-week course in farm management was conducted. Regional meetings were also held with extension personnel to find out what assistance was required from agricultural economists.

In 1961, four areas of concentration point out the extension orientation of the Branch:

- farm cost studies by commodity and region;
- farm management "to assist in the extension to farmers of information on the basic principles of sound management practices";
- marketing and outlook for collection, analysis and "extension of information to help agricultural producers and marketing agencies in their production and marketing decisions"; and,
- general agricultural economics "to establish a background of analyses in the area of economic development, supply and demand, and agricultural adjustment and rehabilitation."

In 1964 Regional Farm Economists were appointed in Lethbridge and Calgary to give "assistance to farmers and farm groups through the 15 District Agriculturists and the District Home Economists in the two regions."

About one quarter of the D.A.'s were taught how to do a business analysis. It was expected that within three years all D.A.'s would be able to perform a business analysis and teach farmers how to do the same.

Agricultural Rehabilitation and Development Act (A.R.D.A.)

The Land Conservation and Utilization Committee chaired by the A.D.A., which had been in existence for some time, became the focal point for Provincial/Federal A.R.D.A. programs in 1962. Previously this interdepartmental/university committee had largely concerned itself with community pastures and monitoring the Agricultural Soil and Feed Testing Laboratory. These activities continued under this Committee but personnel on it also considered A.R.D.A. project matters as the A.R.D.A. Advisory Committee.

Alberta and the Federal Government signed five project agreements in 1963 of which two concern our study: (1) alternative land use and, (2) rural development areas research. The first concerned taking lands out of agriculture for other use; the second permitted a start by the A.D.A. Agricultural Economics Division on a pilot socio-economic study of Census Division 14 (Edson).

In 1965 new Federal/Provincial agreements were signed, and A.R.D.A. now stood for Agricultural and Rural Development Act. Emphasis was shifting from agriculture to rural development. A socio-economic study was approved for C.D. 12. Community development work had begun in C.D. 14 using a Regional Resource Co-ordinator (a former North Edmonton Associate D.A.) and a Rural Development Home Economist (a former Grande Prairie D.H.E.) who later became Assistant Regional Resource Co-ordinator.

The A.D.A. through assignments from the A.R.D.A. Advisory Committee was broadening into regional resource development. However the A.D.A.'s extension field force was not being heavily involved. Community development-oriented personnel from the D.A. and D.H.E. field forces transferred to key A.R.D.A. positions. But the job function of the D.A. or D.H.E. in the A.R.D.A. project areas did not alter except to serve as a resource person when called upon.

(e) Regionalization: 1966-1970

In 1966 the Department of Agriculture was reorganized into seven Divisions (see Chart 5-4). The new Extension & Colleges Division began to decentralize extension activities by dividing the Province into seven Regions (see Chart 5-6). Accompanying the creating of these Regions was the establishment of Regional Specialists and Regional Supervisors.

Only six of the Regions are operational with the seventh being split up among three of the others. Each Region is administered by a Regional Agriculturist who is responsible to the Head of the District Agriculturist Branch. The regional staff consists of the D.A.'s, D.H.E.'s, Regional Extension Engineers, Regional Plant Industry Supervisors, Regional Dairy Specialists, Regional Livestock Supervisors, Regional Poultry Specialists, Regional Farm Economists, and Regional Directors from the Water Resources Division. Although the Regional Agriculturist is the administrative head of the 'regional team', there is no one solely responsible to him. Every one of the regional personnel is primarily responsible to another Branch of the Extension & Colleges Division, someone in 'Head Office' with the Extension & Colleges Division, or is completely responsible to another Division of the Department.

The Extension & Colleges Division was structured into a District Agriculturist Branch, a Home Economics Branch, an Information Branch, an Agricultural Engineering Branch, and an Agricultural and Vocational Colleges Branch. A Rural Leadership Training Section was also established in 1967.

(i) District Agriculturist Branch

The 4-H Division was transferred to the Department of Youth but D.A. and D.H.E. functions did not diminish in this area until 1968. In 1967 Regional 'Specialists'

were proving to be "an important added strength to the District Agriculturist in his district."

The rapid turnovers in staff during the 1966-1969 period resulted in decreases in some activities. In 1966, only 33 per cent of District Agriculturists and Assistants had less than 5 years of service. In 1968, this figure had risen to 59 per cent and was projected to rise to 66 per cent in 1969.

By 1969 there were 48 D.A.'s, 2 Associate D.A.'s, and 10 Assistant D.A.'s. Four District Offices were not filled.

(ii) The Home Economics Branch

In 1967 the staff consisted of the Head and Associate Head of the Branch; a Home Management, a Home Design, a Clothing, and a Food and Nutrition Specialist; a Regional Home Design and a Home Management Specialist in Calgary, and 26 District Home Economists. By 1969 a Senior Home Economist was added to the headquarters staff. The first City Home Economist was appointed in Edmonton. There were 29 D.H.E.'s in the Branch.

In 1967, radio and television were responsible for increased awareness of extension programs. Consumer education became the second largest subject matter area. The demand for home design assistance continued to increase and was partially handled by a new group workshop approach. The demand for a sewing instruction course increased 100 per cent.

In 1968 'home management' and 'family living' extension increased with emphasis in estate planning and consumer information. A pilot project in family life education was also initiated and "met a community need by evidence of the excellent attendance and interest." Some work with Native people was also reported.

In 1969 increased time was spent on a weight reduction (human) pilot project, the operation of a new Home Economics Laboratory, and co-operation with other government projects throughout the Province.

(iii) The Agricultural Engineering Branch

Regional Extension Engineers were located in the six regional centres by 1969. A number of part-time appointees conducted welding and tractor maintenance programs.

In 1967 it was noted that there was a trend for specific information to meet individual needs. The trend for individuals to seek information and services from the Branch was still increasing in 1969. Most of the contacts were arranged through D.A.'s.

(iv) The Information Branch

The Information Branch evolved from the former Radio and Information Section. In 1967 a 'Product Promotion Office' was established "to plan programs for promoting Alberta grown products and to provide consumer information to the mass media from the Department's Home Economists."

Other extension activities involved the publication of "Farm Notes"; the release of reports on agricultural research projects; the writing of special news releases to mass media; the preparation of agricultural weather forecasts; the production of the "Call of the Land" radio program, which was used "primarily to publicize the services of the Extension and Colleges Division . . ."; and co-operation in the production of the television program "This Business of Farming ."

In 1969 similar work was undertaken with the following additions. Production of agricultural programs was initiated for the Metropolitan Edmonton Educational Television Association. Other agricultural television programs were produced in co-operation with the Edmonton Separate School Board, the Canadian Broadcasting Association, the County of Mountainview Educational Television Association, and commercial stations. Some extension workers were instructed in the use of portable videotape units.

(v) Leadership Training and Development

The Rural Leadership Training Section was established in 1967 with the objectives of increasing the leadership skills of rural organizations and the staff of the Department. Time has been spent working with the F.U. & C.D.A., the University of Alberta Extension Department, and other agencies outside the Extension & Colleges Branch of the Department of Agriculture. An effort has been directed to staff training both within the Division and within the Department.

(f) A.R.D.A.: 1966-1970

The A.D.A.'s Area Rehabilitation and Development Administration (A.R.D.A.) Branch continued activities in 1966. A former Bonnyville District Agriculturist became Regional Resource Co-ordinator for C.D. 12 and a former St. Paul D.H.E. became his Assistant. Initially both retained their former duties. Rural development activity was beginning in C.D. 15. Other A.R.D.A. activities involved a regional growth symposium and many physical resource studies and projects.

The C.D. 14 program undertook some land purchase and farm enlargement. Canada Manpower and Alberta Vocational Training (A.V.T.) were active in upgrading of those leaving

agriculture. D.A.'s and D.H.E.'s in C.D. 14 were used as resource people by the Co-ordinator and other permanent A.R.D.A. staff. In addition, the Agricultural Economics Division and A.D.A. field extension workers were involved in farm management schools at Edson and Evansburg.

In 1967 the A.D.A.'s A.R.D.A. Branch carried the title Agricultural and Rural Development Administration. The C.D. 14 staff expanded to include 2 Community Advisors, 2 Home Development Agents and a Land Use Specialist, none of whom were former A.D.A. extension field staff. A Home Visitors' Program, using local lay workers as counsellors, grew at Hinton and Edson. C.D. 15 got a Regional Resource Co-ordinator, a former Spirit River D.A. F.U. & C.D.A. rural sociological research and study groups were sponsored under A.R.D.A. Indian studies, recreation studies and physical resource projects and studies continued.

In C.D. 14, meetings of agricultural, recreation, forest producer, leadership, community organization, youth, farm and home management committees involved local people plus A.R.D.A. personnel, Department of Youth representatives, the D.A. and others. Farm adjustment teams had been created comprising the Regional Resource Co-ordinator, the Farm Adjustment Specialist, the Training Counsellor (all A.R.D.A. people) and a Farm Adjustment Committee. Such Committees usually comprised 4 farm unit operators, an F.U.A. representative, the D.A., an Agricultural Field Man from Municipal Affairs, and a Public Lands Inspector from Lands and Forests. Retraining programs involved Manpower, N.A.I.T., Alberta Vocational Training (A.V.T.) and the A.D.A.'s Agricultural and Vocational Colleges. The Home Visitors Program utilized a core of a Public Health Nurse and an A.R.D.A. staff Home Economist with resource back-up from the A.D.A. Home Economics Branch, Manpower, Public Welfare, and others.

In C.D. 12 the Regional Co-ordinator and his Assistant still performed their D.A. and D.H.E. functions. A lot of people were interviewed as to "needs and desires."

In C.D. 15, "awareness" meetings were held with Peace River Region residents to alert them to their problems.

In October 1968, the A.R.D.A. Branch of the A.D.A. was transferred to the Human Resources Development Authority. C.D. 15 got a female Assistant Regional Resource Co-ordinator (holding an Education degree). The Slave Lake area got its own Co-ordinator. The Research and Planning Division of H.R.D.A. (formerly the Rural Development Research Branch of the A.D.A.'s Agricultural Economics Division) did a detailed rural development outline for C.D. 15 called "The B-15 Plan."

In C.D. 12, 3 farm adjustment committees were set up at Lac La Biche, Bonnyville and St. Paul. Farm purchases and sales took place. A Land Use Technician was hired. A Home Visitors Program was started at Fort McMurray utilizing the Baptist Women's League.

The many committees continued to meet in C.D. 14. An Evansburg D.A. was in training to take over the Regional Resource Co-ordinator role. Farm adjustment continued on a modest scale. Following is a tabulation of what happened to the families whose land was purchased (and a comparison with the previous two years).

	<u>1966</u>	<u>1967</u>	<u>1968</u>
Relocation (Alberta or elsewhere)			4
Alternate employment	6	11	13
Training	2	4	1
Retirement (early or otherwise)	4	8	6
Continued farming			1
Relocated on farms elsewhere	2	3	
Straight purchase		9	
Being counselled	9	1	
Miscellaneous	—	3	—
	32	30	25

Educational upgrading for C.D. 14 comprised 500 interviews and 35 people who actually upgraded during the year. These people upgraded at the Alberta Vocational Training Centre in Edmonton, at N.A.I.T., at Agricultural and Vocational Colleges.

In C.D. 15, the emphasis was on co-ordinating government agencies serving the region.

In 1969, the A.D.A.'s only connections with A.R.D.A. were through senior personnel being members of H.R.D.A. advisory committees and extension field force personnel continuing to be resource back-up for adjustment programs.

In 1970, the Federal Government changed its approach on resource development from "pockets" such as Edson or Slave Lake to "designated areas." In Alberta, as 1965-1970 A.R.D.A. agreements expired, the whole H.R.D.A./A.R.D.A. development concept is apparently in a state of flux. Some former D.A.'s who transferred to H.R.D.A./A.R.D.A. have now transferred back to D.A. service with the A.D.A. Further, the magnitude of Task Force projections of agricultural rationalization appears to move the whole farm adjustment issue onto a Province-wide basis, not just northern Alberta.

2. OBJECTIVES, POLICIES AND PROGRAMS - PAST, PRESENT(a) The Government Objective

The Speech from the Throne of January 29, 1970 stated the following objective:

". . . improvement of the environment wherein creativity and freedom are broadened and strengthened, and where the opportunities, values, potentialities and liberties of individual Albertans remain the first concern and the major objective of public policy."

(b) Objectives of Government Departments(i) Department of Social Development (D.S.D.)

The social development of the individual and family is to be emphasized rather than the old concepts of maintenance and custody: the old 'welfare' concept.

(ii) Human Resources Development Authority (H.R.D.A.)

The functions of H.R.D.A. are:

". . . to develop, co-ordinate and supervise provincial and regional programs and services to encourage and help individuals and communities develop their human resources to the fullest potential"

(iii) Department of Agriculture (A.D.A.)

The 1968 Annual Report stated:

"The purpose of the department is to develop and conserve, for the common good, the human and physical resources of agriculture and in this general interest shall perform those functions and provide services, related to: Agricultural Extension and Education, Animal Industry, Veterinary Services, Plant Industry, Agricultural Economics, Water Resources and Program Development for progressive and continued growth of the Alberta agricultural industry.

Furthermore, such functions and services shall be commensurate with sound scientific and economic principles to attain maximum production of high quality food and other agricultural products; to stimulate to maximum development the human

and physical resources available to the industry and to improve the economic and social position of those engaged in agriculture."

(c) Objectives of A.D.A. Divisions (see Chart 5-4)

(i) Water Resources Division

"In the social and economic environment which society may from time to time determine for itself, the Division's objective is to ensure that water is not a deficient ingredient."

(ii) Veterinary Services Division

"In the interest of economic production, to protect, maintain and improve the health of Alberta's livestock and to protect human health."

(iii) Agricultural Economics Division

"To increase the economic and social well-being of farm families by providing services which assist in the establishment and maintenance of competitive and viable farming operations and related business enterprises."

(iv) Program Development Division

This Division is responsible for:

- developing selected new agricultural programs to meet changing conditions,
- administering programs that are not readily or solely identified with the specific disciplines of other Divisions, and
- co-ordinating administrative programs of a Departmental scope.

(v) Animal Industry Division

"To promote and direct the orderly development of the livestock, dairy and poultry industries through policies of licensing, inspection and extension education."

(vi) Plant Industry Division

"The objective of the Plant Industry Division is to direct and encourage all aspects of efficient economic and sustained production of field and horticultural crops within physical and human resource possibilities through education, incentive programs or by regulations and within limits of market potential."

(vii) Extension & Colleges Division

The Agricultural Extension Service Branch was formed in 1938 with the long-term objective of improving agricultural and rural life. This was to be achieved through "the distribution of information" as "the main purpose." This involved co-ordination of the extension efforts of other Branches within the Department and other extension agencies. The Annual Report of 1961 formally recognized a new approach of extension workers in not only transmitting but also interpreting the results of agricultural research.

"The interpretation of results and the use to which these results are put is assuming greater importance with the present more exacting demands of farm families."

In the 1962 Annual Report, extension workers changed their major efforts from

"mere purveyors of pills of Agricultural information to the more demanding role of interpreting and guiding the intelligent application of the great volume of scientific agricultural information which has been available."

By 1963 a three-pronged extension objective had emerged. Agricultural information had been disseminated and it was now being 'interpreted.' A third extension area of involvement or objective was that of providing 'guidance to farm families.'

The 1970 Extension & Colleges Division statement of purpose presented to the Executive Committee stated that:

"The purpose of Extension is to help individuals and communities meet their needs in a changing society through a program of

continuing education in the broad field of Agriculture, Home Economics and Community Leadership."

(d) Policies of the Extension & Colleges Division

(i) "Self Help" Policies

In the 1948 Annual Report, the Agricultural Extension Branch states that extension's "real purpose is to teach them (farmers) to solve these problems themselves. . . ." Since this pronouncement the Extension & Colleges Division has consistently advocated that extension policies be designed to "help people help themselves."

The 1959 Annual Report states that District Agriculturists and District Home Economists taught "farm families to help themselves to acquire the necessary information and skills to provide a more satisfactory living." The Annual Report of 1960 states that extension work is that of "providing farm families with knowledge and skills to enable them to help themselves to meet everyday and longer term situations and problems." (Underlining added)

(ii) Liaison

The 1959 Annual Report said that

"the District Home Economist has the responsibility of maintaining a close liaison with the farm families on the land and the sources of reliable information including the Alberta Department of Agriculture, the Faculty of Agriculture at the University of Alberta and the Canada Department of Agriculture."

This liaison role also involves "the responsibility at the farm level for carrying out policies and programs developed by the Department." The 1961 Annual Report goes on to say that:

"This was accomplished by close contact and association with farm families throughout the Province. This close association enabled extension workers to serve as lines of communication between farmers, the Department of Agriculture, and research institutions"

In 1965 the Annual Report stated that:

"Liaison with research continued to improve. Regular meetings with the three Research Stations has helped make this possible. Similar meetings with University personnel were not held except on an informal basis. Plans were made to insure this necessary liaison by the setting up of the A.A.C.C. and the Extension Advisory Committee."

(iii) Co-ordination

Although co-ordination is a role for all extension personnel, it has more significance within the District Agriculturist Branch. The 1962 Annual Report indicated that D.A.'s were co-ordinating activities at the District level, at the Branch (now Division) level and at the interdepartmental level.

This was broadened somewhat in 1965 when all extension personnel were credited with a marked improvement in:

"the co-ordination of all agencies working in the Agricultural Extension Field."

This included co-ordination at the District, Branch, interbranch, interdepartmental, and interagency levels.

(e) Programs of the Extension & Colleges Division

(i) District Agriculturist Branch

Historically it has been noted that early activities of the District Agriculturists centred around

youth programs which evolved into 4-H Club work. In 1966 the administration of the 4-H Club Program was transferred to the Department of Youth and in 1968 responsibility for organization and supervision at the local level was also. D.A.'s still conduct programs for 4-H Clubs. However, this activity has decreased since 1968.

Extension activities directed towards farm units have been greatly concentrated in the physical production area until quite recently. Early extension programs in the traditional areas of field crops, livestock, dairying, and poultry were heavily weighted in the direction of increasing physical output. This emphasis continued well past the Second World War, when the emphasis on increasing output was particularly strong. These types of extension programs still account for a large portion of the extension effort. Many of the District Agriculturists' areas of training and interest lie in the plant industry and animal industry areas. Such historical emphasis on production is not unique to Alberta extension: many provinces and states concentrated on "two blades of grass."

In 1958 the first Farm Management Specialist was appointed and District Agriculturists extension programs mirrored this increasingly important area. Alberta was one of the first provinces to get into this field. The 1968 Annual Report states that

"farm management now ranks highest in Extension's list of priorities."

District Agriculturists' agricultural engineering activities decreased as the Agricultural Engineering Branch increased its activities. The program areas have

remained fairly constant being buildings, water, sewers and utilities, drainage and irrigation, mechanization, and machinery maintenance. Home remodeling is a fairly recent addition.

Thus there has been an increasing trend to non-production oriented programs in recent years. Farm and Home Programs had a brief popularity during the late 1950's and early 1960's. Farm management and marketing are currently receiving increased emphasis.

(ii) Home Economics Branch Programs

D.H.E.'s 4-H responsibility declined when 4-H was taken over by the Department of Youth. However 4-H Clubs had already been formed in the clothing, garden, food and home decorating areas. In addition, District Home Econimists provide general assistance with leaders' courses, judging competitions, rallies, and 'efficiency weeks.'

Programs in the traditional homemaking areas still account for the bulk of the extension efforts of the D.H.E.'s: home management, food and nutrition, clothing and sewing, home design, and handicrafts.

The home management area incorporated specific programs in budgeting, record keeping, wills, estate planning and consumer education as home management concerns outgrew the traditional areas of "consumer buying for home and family"

The D.H.E. Branch feels that programs such as sewing courses "continue to be a way to reach groups and a way to introduce more in-depth programs such as home management."

(f) Programs of Other A.D.A. Divisions(i) Agricultural Economics Division

As noted before, the Agricultural Economics Division grew out of the farm management activities and information gathering functions of the former Agricultural Extension Branch and the Farm Cost Studies group of the former Dairy Branch. The extension programs have expanded in scope and numbers as the Division has grown, largely due to increased emphasis on farm management by the Department of Agriculture.

Extension programs have been initiated in the areas of farm business analysis, farm enterprise analysis, father-son arrangements, farm incorporation, farm and consumer credit, machinery trading, purchasing land, and fertilizer handling. These programs show the increased emphasis in the non-traditional (non-production science) extension areas. However, they are still directed towards the producing unit. Efficiency has moved beyond the physical input-output stage and is now recognized in terms of profitability.

This Division undertook resource inventory studies of various Census Divisions as a prelude to A.R.D.A. 'poverty pocket' community development work.

(ii) Water Resources Division Programs

The Land Development Branch of this Division carries out extension programs in the areas of sprinkler irrigation, land classification, surface drainage, moisture conservation, and sprinkler designs. Some of the earliest extension work in the southern part of the Province was in the area of irrigation. Land levelling and reclamation extension work is somewhat newer.

Extension programs in this area tend to be quite straightforward, similar in this regard to the programs of the Agricultural Engineering Branch. The extension programs are completely oriented towards the producing unit and have a very high service content.

(iii) Other Divisions' Programs

The Animal Industry, the Plant Industry, Veterinary Services, and the Program Development Divisions all carry out some extension programs. The programs of the first three are carried out by Regional Specialists or Supervisors, or headquarters personnel. The programs are directed towards the producing unit almost exclusively.

These extension programs have suffered a decreasing emphasis only in relationship to the total extension effort. The above Divisions, with the exception of the former Dairy Branch, have generally not engaged in extension programs other than in terms of physical input-output efficiency.

The Program Development Division is new. Its extension activities are intended to be of a non-permanent nature. Extension programs have centred on agricultural service board liaison, A.R.D.A. and now marketing programs. It has come closest to farm adjustment and regional growth analysis through chairmanship of the Conservation and Utilization Committee and thus through A.R.D.A. farm consolidation.

(g) Discussion of Objectives, Policies, Programs

That the A.D.A. has the prime governmental responsibility for extension to production-oriented agriculture is not seriously in question. What is in question is responsibility for human resource development extension in agriculture and in total in 'regional' as opposed to 'metropolitan' Alberta.

The total governmental objective is broad and all encompassing--"improvement of the environment" It stresses human rather than physical things or values. It is translated in one form or another into various departmental objectives witness the shift in D.S.D. to 'social development' from 'welfare.' Or the creation of H.R.D.A.

The A.D.A. objective is broad too. It introduces the 'human factor' into a mix of "physical resources" and "scientific and economic principles." So all three--D.S.D., H.R.D.A. and the A.D.A.--appear to have mandates to carry out human resource extension in the various regions of Alberta.

For instance, human resource development work with the lower income groups engaged in agriculture could be undertaken by the D.S.D. under the rationale of ". . . social development of the individual and family . . . , " by H.R.D.A. under the rationale of acting to ". . . encourage and help individuals and communities develop their human resources to the fullest potential . . . , " and by the Department of Agriculture in the light of their stated objective ". . . to improve the economic and social position of those engaged in agriculture."

Of course, a mandate without funding cannot be implemented. Similarly funding, without everyone in a department believing in the mandate, is futile.

Two solutions to the 'overlapping' mandate problem come to mind. One is the 'task force' approach where co-ordination and co-operation starts at the department level and programs are designed which can involve many different government departments. H.R.D.A. is designed along these lines and at all levels there is a problem of personnel serving both the new task force group and their own department.

The second alternative is give one department not only a mandate and the funds, but personnel transferred from other departments. Thus a multi-disciplinary team can be constructed which does not have divided loyalties and direction. Rather than different government departments being directed to a specific part of a problem, a team within one department will be confronting the whole problem.

Within the A.D.A., the Water Resources Division objective is interesting. Unlike the other objectives, it introduces the aspect of serving a "social and economic environment which society may from time-to-time determine for itself," If such a 'leap of faith' is workable, listening to what society says could be the ultimate way to determine what department or division does what, and to what extent. This is possibly the only mention of 'grass roots' public opinion input in any of the objectives.

The Agricultural Economics Division of the A.D.A. introduces the aspect of 'service', meaning physical carrying out of tasks for the farm unit operator. An example is CANFARM work. Such 'service' is considered to be necessary to 'educate' (learning by example). It is intended to be short-term, e.g., farm operators on CANFARM servicing for three years are 'on their own' at the end of this time. However there is a danger which is obvious. Unless those being serviced are reminded that their 'solo flight' will soon be coming. That increased time or cost or both will surely be involved. Then human nature will cause service programs to become 'built-in.' In the U.S. Co-operative Extension Service, the announced trend is to de-emphasize 'service' programs.

The 1969 A.D.A. Annual Report shows three areas of major concern for the Agricultural Economics Division. The

first is "providing a continuing education service, as an integral part of other departmental programs, with the basic objective of assisting farmers to help themselves attain their individual and family goals." This is clearly extension. The second area is "to advise and counsel government officials on the economic implications of various existing and proposed policies and programs." This can be considered an 'internal' extension function. The third area of concern involves the "collection, analysis and dissemination of research information and agricultural statistics necessary to a more thorough understanding of agricultural trends, outlook, adjustments and social and economic development."

Later in this Chapter, discussion centres on strong regional teams of Specialists. It also centres on consolidation of extension activities within the Extension & Colleges Division. The Agricultural Economics Division is part-extension and part-statistical analysis at present.

The Program Development Division recently took on an 'extension' program in addition to its 'staff' function. This program is marketing and one specific example is the "Pork Promotion Program." Once again, can you have multiple A.D.A. divisions 'getting into the extension game'?

Both the Animal Industry and Plant Industry Divisions feel that part of their objective is to "direct" or "promote" or "encourage" advancement of agriculture in their livestock or crop specialties. Plant Industry introduces "market potential" as a limiting factor on effort. Animal industry introduces the words "orderly development" of the livestock, dairy and poultry industries. At present both Divisions have Specialists and Supervisors in the field doing extension for the Extension & Colleges Division but reporting to their own 'home divisions.' Is this operationally sound?

The objective of the Extension & Colleges Division keeps broadening over the years. "Community Leadership" has now been added to the traditional areas of agriculture and home economics. For the sake of argument one wonders whether consolidation of traditional extension activities from other Divisions within this Division is not a first step. Then broader aims such as community leadership may be contemplated. Considering the present A.D.A. structure it may have been necessary to have multiple extension activities going on in several divisions. Whether this need be true in future is open to question, particularly in light of changes in the structure of the Extension & Colleges Division which we suggest later on in this Chapter.

The Extension & College's Division has a philosophy of "helping people to help themselves." The idea is basically a truism. If extension programs are to be effective they must be carried to the point where the recipient can help himself. In U.S. extension work, the suggestion is made that the philosophy be changed and that in future Extension should be "helping people adjust to societal change" (John Photiadis, Journal of Extension, 1970). Extension agents should serve as ". . . a buffer for change so its impact will be controlled." This ties in with Toffler's view of "future shock" mentioned in Chapter 2. Such a change in philosophy is relevant to the need we see for A.D.A. concentration on assisting developing farm units.

3. PROGRAMS AND ACHIEVEMENT

Agriculture has been characterized as an industry which falls into the physical resource category. The extension efforts of the Department have directed some increased effort towards the human resource area. However, the majority of programs and time and effort have been and still are directed towards the physical resource aspect of agriculture.

(a) Information-Oriented Programs

A.D.A. information dissemination programs often involve groups of people in short-courses, field days, and meetings. Information is also extended on an individual basis. Individual contact entails more interpretation and guidance. This is dealt with in the next sub-section of our study.

(i) To producing units:

The information services provided by the District Agriculturist Branch, the Agricultural Engineering Branch, and other Divisions of the Department are very heavily oriented towards the physical resource area - the farm as a producing unit. Production science now shares some of the spotlight with farm management and marketing.

The District Agriculturist Branch has for years carried production science information to producers in the areas of plant industry, e.g., forage crops, animal industry, e.g., R.O.P. and agricultural engineering, e.g., farmstead mechanization. Almost all similar programs are directed towards improving the production science aspect of farm units. The programs of the Agricultural Engineering Branch fall into this category as back-up to the D.A. Branch.

Much of the information extended in what is called 'agricultural economics' concerns farm management, such

as accounting records and analysis for example. Most of the Agricultural Economics Division publications are of a farm management nature as illustrated by the following sample list:

"How to Complete the Prairie Provinces Farm Account Book"

"How to Analyse the Farm Business"

"The Cattle Feeder and the Futures Market"

The Land Development Branch of the Water Resources Division extends production science information to producing units in the areas of irrigated land development, land classification, surface drainage, and land use planning.

The Plant Industry, Animal Industry and Veterinary Services Divisions extend production science information to producing units through regional Supervisors and Specialists and headquarters personnel.

(ii) To family units:

Information is also extended which is not designed to increase knowledge or skill in production areas. It can generally be characterized as being directed towards the family aspect of the farm unit. The Home Economics Branch places most of its emphasis in this area. These programs can be considered as emphasizing improvement of the 'quantity' of life as opposed to the 'quality' of life.

The Home Economics Branch has programs in the areas of home management which includes living costs, budgeting, record keeping and general consumer education; family living which includes family life education; food and nutrition which includes catering, labelling, packaging, food additives and convenience foods; home design which includes floor plans, colour

schemes, building and finishing materials, remodeling, and furniture refinishing; and clothing and sewing which includes advanced sewing and tailoring, finishing techniques, textiles and upholsteries, dying, and stain removal.

The District Agriculturist Branch also carries out some programs which extend information to family units. These are primarily in the area of 'agricultural economics' which includes income tax, estate planning, father-son agreements, and leases, and in the area of agricultural engineering which includes home water, sewer and utilities. The Agricultural Engineering Branch extends information to families primarily in the areas of home building and remodeling, sewerage and plumbing. The Agricultural Economics Division extends information to families in the areas of farm incorporation, farm and consumer credit, and father-son arrangements.

(iii) To the community:

The extension of information to the community as a whole is directed towards both physical resource and human resource needs.

The District Agriculturist Branch extends information to the community through work involving 4-H Clubs, planning commissions, Farmers' Union and Co-operative Development Association groups, and A.R.D.A. projects. District Agriculturists participate in meetings as resource persons and give talks and speeches to community groups.

The Home Economics Branch extends information to the community at large in such areas as 4-H Club work, leadership training sessions to 4-H and other groups, marketing promotions, work for other government departments (such as the preparation and revision of Scales

of Allowance for Public Assistance for the Department of Social Development), displays at fairs and exhibitions.

The Leadership Training personnel also engage in some extension to the community through participation at the Goldeye summer camps, and programs for Indian and Metis groups in addition to their major role of in-service leadership training.

(b) Interpretation and Guidance (the "I.G. Factor")

For some farm unit operators, the extension of information only is ineffective. Recipients need interpretation and guidance in the application of the information available. Generally I.G. is extended by individual contact. I.G. entails a considerable amount of individual time and attention. To-date, government extension personnel have not had the time, the training or the contact entry points to utilize the I.G. Factor where it will do the most good: the 'emerging' developing farm unit (see Chart 4-1).

For example, the Home Economics Branch is less heavily committed in actual operations to the I.G. aspect of extension than the guidelines of the Branch would suggest. Most activities are information-oriented because a much greater proportion of extension effort is carried out via group activities and telephone. The major areas where I.G. accompanies information is in home designs where "in depth discussion and study of individual and family needs" are carried out, and in family life education. However D.H.E.'s are the first to admit that they do not reach emerging or adjusting-out farm family units with such programs. Further, with some exceptions and keeping in mind a current trend to furthering the I.G. factor in the Branch, a sewing course is still designed to be just that "and not a forum for the ladies to bend the D.H.E.'s ear on family hang-ups."

While home economics is singled out, personnel in the other Branches and Divisions admit that the I.G. Factor is currently used only in a limited range of farm units and types of programs.

(c) Service

The distinction between 'I.G.' and 'service' is an arbitrary one. For instance, estate planning, drawing up plans for farm buildings and surveying for surface drainage projects are non-repetitive in nature and are service functions. Performing functions which are repetitive such as computing income tax and farm business analyses have an educational value in that they serve as demonstrations for future self-performance. This type of activity is I.G. in intent and result, unless the extension worker repeatedly performs these tasks in which case he is providing manual service. To the extent that manual or even educational services are available elsewhere the government extension service is redundant if the recipient can afford to purchase the service from the private sector or can provide it himself or in some combination of his commodity peers.

Where extension services become repetitive because the recipient cannot or does not wish to perform them himself, this indicates either that the recipient is not capable of performing the function or the I.G. effort inherent in the demonstrations is insufficient. Farm business analysis is a program which, in any extension service, offers a lot of room for this weakness to appear. Farm unit operators do not like record keeping. Extension personnel sometimes see record keeping servicing as a good continuing contact point of entry for introducing other programs.

(i) To producing units:

District Agriculturists and District Home Economists do not provide any significant manual services to producing units.

The Agricultural Engineering Branch has noted a marked trend of individuals seeking "information and services." Its extension of service in the form of preparing plans for example is justified in that no outside engineering group has sufficient agricultural knowledge. In Ontario such is not the case. The Ontario Hydro has a leading agricultural engineering group. In Alberta the utility companies have not yet moved in this direction, though Calgary Power has the potential to do so.

The Farm Management Branch of the Agricultural Economics Division provides regional specialists who have had the duty "to gather the account book information and provide the on-farm follow-up consulting services" for farm units participating in the Farm Business Analysis Program. This type of activity amounts to extending manual service if perpetuated but the Branch has recognized the potential problem. Currently, this Branch is heavily involved in assisting farm unit operators with CANFARM. In an effort to reduce unnecessary future extension of service the Department of Agriculture has decreed that farm unit operators may only receive this extension for three years. They are then on their own to utilize private accountants or to send in their data directly.

The Plant Industry Division administers the Agricultural Soil and Feed Testing Laboratory which provides a soil and feed sample testing service for farm units.

The Land Development Branch of the Water Resources Division's primary objective is "to supply technical service and information that will aid people to make beneficial use of water in the production of crops and livestock." Its extension of service to

producing units takes the form of land levelling surveys, surface drainage surveys and sprinkler designs. Such 'one shot' efforts are justified from a water conservation standpoint.

(ii) To family units:

The Home Economics Branch extends service to a significant extent. The most important area where service is extended is in home design where plans for new and remodeled homes and interior design services are provided. The 1968 Annual Report stated that,

"In-depth discussion and studies of individual family housing needs resulted in much satisfaction to the participating families."

If this is a vehicle for family counselling, then the I.G. factor outweighs the manual servicing. If not,

• • •

(iii) To the community:

District Agriculturists have provided extension service to communities by serving on local organizations in capacities which take them beyond what may be considered normal interpretation and guidance. Some D.A.'s have served on the boards or as secretaries of various co-operatives. Encouragement regarding formation of such organizations can be considered normal I.G. But assuming and carrying out definite functions in such organizations is provision of manual service.

(d) Program Achievement Evaluation

The difficulties inherent in evaluating the effectiveness of extension programs are many. Tabulations of numbers of meetings, attendance, publications, phone calls, workshops, farm calls all indicate effort but not, unfortunately, effectiveness.

(i) Consistency with Objectives

Programs have to be consistent with the objectives and policies of the Department of Agriculture and the specific Division. The objective of the Department of Agriculture is general enough that few if any programs could be in conflict with it. The objectives of the various Divisions are more specific but still general enough that no basic conflict between programs and objectives is likely.

(ii) Fulfilling Farm Unit Wants and Needs

The Extension & Colleges Division has for some time recognized an ideal of allowing 'grass roots' input to determine extension programs. The Division is to be commended on its attempts to generate a genuine 'grass roots' input and the limitations of such attempts have doubtless been frustrating. From our farm unit contacts and in discussion with extension workers in the field, there is frank admission that the emphasis of present A.D.A. extension efforts will not be indicative of the wants, needs and aspirations of the entire agricultural community or even a very wide segment of farm units.

In as much as extension is education and therefore involves the changing of attitudes, some determination of needs by extension experts will occur and is probably advisable. However, needs determined by such "outsiders" can sometimes be in opposition to the wants of people in commodity peer groups or regional communities. This is one of the crucial philosophical problems with which extension has to deal. The resentment built up against extension personnel who sometimes may extend information and services which are not wanted, even if needed, can destroy the effectiveness of other programs which are directed towards legitimate 'grass roots' wants.

(iii) Cost and Benefit

Is the cost entailed in maintaining an extension effort matched by benefits received by the rural community? The costs and benefits for specific individual programs will not be analyzed. However, the cost involved in maintaining the present A.D.A. extension effort in relation to alternative efforts will be investigated in Chapter 10. There we will assume that if benefits can be increased in terms of numbers served, information available, and speed of access, but costs reduced or held constant or increased in a reasonable proportion, then a net gain has been achieved.

(iv) Barriers to Evaluation

Individuals and extension groups may have motives which cause searching evaluation to be resisted. As Patrick Boyle of the University of Wisconsin notes, "organizations may not be serving a significant function causing individuals to become anxious about promoting such an organization or some or all of its programs." We found that many extension field workers found it difficult to identify with the very broad goals of the A.D.A. and even broad Divisional goals.

There are also some attitudes which hinder evaluation. Evaluation may be considered too time consuming relative to the benefits gained. This idea is reinforced when it is felt that there are no valid approaches to evaluation. This feeling is very prevalent where the outcome of programs are intangible. Evaluation may be felt to be beyond the sphere of activity of the extension worker and be the prerogative of the administrator or the expert. And some programs may be felt to be so beneficial that the question of evaluation is not only unnecessary but impertinent or disloyal. All of these views were expressed at one time or another in our dialogue with A.D.A. extension field forces.

(v) Efficiency of Information 'Delivery'

It is possible to discuss the effectiveness of extension information programs in terms of up-to-dateness, quality, speed of dissemination, and coverage -- in other words, efficiency of delivery.

Up-to-dateness

A frequent complaint voiced not only by farm operators but also by Department extension personnel is that much of the available printed information from the A.D.A. is not recent enough to be of practical commercial value. Techniques change rapidly especially in the areas of production, marketing, finance, control and human relations. A fast moving system of compiling, cataloguing and disseminating information is essential.

If such a system is not instituted, and the information is known to be dated, or proves to be poor because of being dated, the farm unit operator will become suspicious of the information source and cut himself off from other potentially useful extension programs. If the knowledge position of the producing unit suffers, the well-being of the family unit and the community also suffers.

Quality

The quality of information disseminated is also vital to the success of the disseminating agency. To the producing unit, quality appears to be bound up in the economic practicality of information. Up-to-date information which cannot be practically followed in terms of rate of return and ability to finance, is of no use to farm business unit operators. To the farm family unit, quality is also partially measured in terms of practicality. One of the major farm unit concerns regarding Department of Agriculture data, but more particularly Research Station and University data is quality in the sense of practicality.

Speed of Dissemination (Accessibility)

An up-to-date supply of quality information will not be used effectively if it is not readily accessible. The information explosion is upon us in agriculture. If the existing face-to-face information retrieval system is solely relied upon in the next 10 years, delays before information is forthcoming will be intolerable. Even where immediate responses are not absolutely essential, comparisons with the speed of other extension agencies such as agri-business will be inevitable and unfavourable.

Thus our study suggest a well-planned changeover to an increased degree of reliance on electronic communications for information dissemination.

Coverage (Duplication and Gaps)

Overlap between government and agri-business exists in the area of service extension. Agri-business soil and feed testing laboratories believe they can provide better and faster technical service than can the test laboratories subsidized by the provincial government. This feeling is also prevalent in private research groups testing crop varieties or testing controlled livestock feeds.

Such overlap limits the total effort. A provincially supported institution should normally 'seed' a project with money, after making certain that a gap exists. Then it should see that the testing service is gradually increased in use through normal pay-as-you-go practices. Failure to do this can lead to unnecessary subsidization and prevent the entry of or conversion over to private facilities.

The Veterinary Services Division of the A.D.A. has the right philosophy. It only provides diagnostic

laboratory services not available in private clinics or practices. Even then, farm units are encouraged to use private veterinarians as experienced agents for correct submission of samples.

Duplication by government of other extension efforts of agri-business has been justified on the grounds that an agri-business 'credibility gap' exists in the minds of farm unit operators. However, a considerable amount of farm operator opinion indicates that he is usually not too concerned about such possible bias and feels confident in making his own decision. His attitude is that if the information provided is not worthwhile, other firms will be patronized. Duplication of such extension efforts by government under a 'credibility' rationale is costly and unnecessary.

Gaps in extension programs exist in terms of the different groups within the community served. The large-scale, top commercial managerial farm units are well serviced by agri-business extension while some regular commercial farm units are looked after by the government extension service. However, there are considerable gaps in the extension programs which deal with the smaller farm units.

Few programs exist which can service such units. These few do not reach them due to antipathy on the part of potential recipients or lack of interest on the part of extension personnel. The attitude of extension personnel that "if people are not interested in this program, I have programs which other groups will be interested in" is understandable. However, the problems faced by the small unit remain and the opportunity for smoothing out the agricultural adjustment process that is taking place is not being utilized. It is also understandable that extension personnel might prefer to

engage in programs for the larger, more prosperous farm business units. These units are likely to be more aware of available extension programs and be more vocal in indicating interest. These units also have greater financial resources available to implement extension recommendations. However projections indicate that a large number of farm units capable of 'emerging' in the next 10 years must be counselled.

In future it will be necessary to have an A.D.A. organizational structure which allows the same emphasis to be placed on programs which service the 'emerging' farm unit as is currently placed on the 'regular commercial' farm unit. Here is where all the talents and skills of the existing and future A.D.A. field force face a specific formidable challenge worthy of all-out effort. It will give Alberta its share of viable commercial farm units in a rationalized Canadian agriculture.

Conclusion

It is technically feasible today to construct and maintain information retrieval systems which will be up-to-date, contain information of good quality, be readily accessible, and avoid duplication. Electricity moves much more quickly than man and increased electronic communications will be essential in the future of the A.D.A. extension service.

4. METHODS OF DETERMINING FARM UNIT WANTS AND NEEDS -
PAST AND PRESENT

The Alberta Department of Agriculture attempts to determine the needs (or wants) of farm units through some grass roots opinion sampling. District Agriculturists have undertaken 'farmer surveys' for their Master's Degree theses and we have already referred to some of these. District extension personnel in some instances work with local "extension advisory groups" when planning future programs. Such groups have increased in numbers in the past few years. However, there are still Districts which do not have any formal organization for receiving farm unit opinion.

To-date, whether farm unit opinion is received through formal groups or through informal individual contact, it has only been the opinion of those farm units which deal with extension personnel. Nevertheless, it is a step in the right direction. In the next section we suggest some additional ideas for Alberta Department of Agriculture opinion sampling.

5. METHODS OF DETERMINING FARM UNIT WANTS AND NEEDS - FUTURE(a) 'Grass Roots' Input

'Grass roots' input to extension programming is a serious attempt to get farm production units, farm family units and communities to spontaneously state their wants! The opposite approach is for outside experts to superimpose what they feel are the 'needs' of operators, families and communities. The ideal mix is in some mid-ground between these two approaches.

In Chapter 4, we emphasized that communications in commercial agriculture will be along commodity peer group lines. Thus 'grass roots' input here must be by commodity peer group by A.D.A. Region and then rolled into a Provincial picture. For emerging farm units and adjusting-out farm units (and general non-agricultural regional development work) the neighborhood community is still a viable base. The following methods of obtaining 'wants' and 'needs' must keep the foregoing distinction in mind.

(i) By $\frac{1}{2}$ Inch Videotape Recording ($\frac{1}{2}$ Inch V.T.R.)

Our study recommends $\frac{1}{2}$ inch videotape surveys of commodity groups and communities in A.D.A. Regions. Using a Regional commodity group as an example, a videotape camera crew encourages dialogue among farm units over a fairly lengthy period, say four months. The farm units help to film and edit their thoughts on information wants. Whether the edited tapes ever leave the commodity group is up to the farm unit operators. But awareness grows on both sides: the A.D.A. and the farm units. Programs are implemented, then V.T.R. evaluated.

(ii) By Advisory Groups

Extension personnel now receive some grass roots input at the district level through local extension advisory groups. This type of input is valuable. It can give direction to both desirable new programs and to

existing programs which should be improved or dropped. However, the great limitation to this type of grass roots input is that it does not include the opinions of large numbers of farm units which do not have contact with the extension personnel. In Oregon, the local advisory committees 'cobweb out' into sub-committees to encompass as many farm operators in a community as possible. Further, there is a five-year reassessment of advisory committee effectiveness. Both of these ideas should be tried in Alberta.

But first the basis for use of advisory groups in Alberta in future must be changed. For commodity peer groups there must be an advisory group to the A.D.A. Regional Office. For emerging and adjusting-out farm units, community-based advisory groups have relevance.

(iii) By Farm Organizations

Farm organizations can also provide some grass roots input to extension programing. This input will have to come from the local level where specific needs and problems can be introduced, not at the head office level where regional differences can be obscured. Farm organizations do not represent all farm units, however, and some farm unit and some regional opinion will still not be represented. Surveys of low income farm units reveal that the operators of such are often not participants in farm organizations though they may utilize purchase co-operatives.

In Chapter 7 on "Farm Organization Extension" we suggest the potential for use of lay field forces of Unifarm and the Farmers' Union and Co-operative Development Association (F.U. & C.D.A.) in emerging and adjusting-out farm unit 'awareness' programs.

(b) Changes in Attitude

Economic and social change in the agricultural regions of Alberta will accelerate in the next 10 years. Attitude acceleration is not an easy matter. 'Grass roots' input will help. However, it is not possible for all extension programs to be based upon 'grass roots' wants. Governments and others are in a position to take a broad perspective on agricultural trends and problems. Many worthwhile and even essential government policies and programs have been and will continue to be implemented by the A.D.A. These policies and programs will be based upon needs of farm units which may be in conflict with present wants.

A concentrated communications effort is needed. Our study suggests the Extension Triumvirate: data bank, extension centre, and communications group.

(c) Onus of Initiative

In the future the onus will be put upon the farm unit to seek information. This has to occur because of the sheer magnitude of the information explosion. This may involve a considerable change in attitude of some farm units which are used to having answers brought to them. Yet, almost all of the farm unit operators we talked to were ready to take the information-seeking initiative if data were readily available and they were taught how to retrieve it and analyze it.

6. OBJECTIVES, POLICIES, PROGRAMS AND APPROACHES - FUTURE(a) Objectives

The Department of Agriculture's stated objectives are to:

- attain maximum production of agricultural products;
- stimulate maximum development of physical and human resources; and,
- improve the economic and social position of those in agriculture.

These are general enough that there is not likely to be any conflict between these objectives and the wants of farm units.

Agricultural thinking has gone beyond maximum production and with emphasis on farm management and marketing, so has the thinking of the A.D.A. However, the second and third objectives will be the objectives of the future.

We must point out that encouraging people to remain on the farm or in agriculture or to move off the farm or out of agriculture are not proper objectives of the A.D.A. or the Extension & Colleges Division. This is a personal decision to be made by the individual concerned. However, to promote the general welfare of the individual is a fit objective. Further, to improve the position of the emerging farm unit or the adjusting-out farm unit are fit objectives. But these latter two objectives must allow individual farm units freedom of choice to align themselves with either one.

(b) Policies

An important new policy area must place emphasis on the developing farm unit. To a large extent this recognizes that the top commercial operator gets most of his knowledge and service elsewhere and can afford to do so. It also

recognizes that the regular commercial operator currently served by the A.D.A. extension worker can probably fend for himself to a much greater extent.

New policies will also give recognition to the fact that the different extension needs of different farm units have to be met with different policies and programs. This means different personnel in many instances with different skills and interests. For the 'adjusting-out' segment of the developing farm units, sociological skills will be as important as agrology.

(i) M.F.D. For The 'Emerging' Developing Farm Unit

A major policy effort must be directed towards the 'emerging' developing farm unit. For those farm businesses which want to 'emerge' to become commercially viable enterprises, a Managerial Farm Development (M.F.D.) program must be implemented. This is an area which has already begun to receive emphasis by the A.D.A. through CANFARM. However, it requires an even greater commitment. Effective M.F.D. programs will not require a new directional policy, but changes in extension techniques and an upgrading of the skills of personnel will be necessary.

(ii) R.D. For The 'Adjusting-out' Developing Farm Unit

In keeping with the policy of designing specific programs to fit specific needs, a major governmental policy shift will be necessary in the area of extension to the 'adjusting-out' developing farm unit. For these farm units which over a period of time wish to leave the industry (but not necessarily the physical locality), a Resource Development (R.D.) program must be implemented.

The question of whether government should encourage or discourage emerging or adjusting-out unit operators has been dealt with. The onus is on the farm unit

operator to choose his course of action. Such choice is a free one in the short-term but not in the long-term because it is clear that the rationalization process will take place and that it will take place rapidly. Economic necessity and opportunity will produce the 'grass roots' wants to adjust out or emerge. No arbitrary gross income, asset level or net income cut-off is necessary. The A.D.A., and more particularly the R.A. and the D.A., do not have to choose who will emerge and who will 'adjust out'. Economics, managerial ability, the realities of the marketplace, and degree of initiative and enthusiasm of the farm unit operator will make the decision. In a generation? No! In the next 10 years!

Who Should Handle the R.D. Program?

There are some advantages to the Department of Agriculture undertaking the R.D. program. The A.D.A. has a large group of extension workers now located throughout the Province. A large portion of the R.D. program will involve an agricultural input as a point of entry. An additional advantage involves the fact that the A.D.A. has an image acceptable to individuals engaged in agriculture: a 'welfare' approach might not be acceptable.

Disadvantages involved in having the A.D.A. carry out the R.D. program involve the production science and farm management orientation of the Department and extension personnel. Despite past pronouncements from the Extension & Colleges Division regarding its role in 'community development', a few instances of individual extension worker efforts, and notwithstanding H.R.D.A./A.R.D.A. involvement, the major extension efforts of the D.A.'s have been directed towards physical and economic operation of producing units. The major efforts

of the D.H.E.'s have been directed towards the traditional homemaking skills of family units. The major efforts of extension personnel in other Divisions or Departments have been directed towards regulation and production science. The training and interests of most extension workers are in these areas -- not in the areas required by the R.D. program.

Production science and farm management extension to the producing unit has gained recognition for the extension worker. Extension in the R.D. area has not. So he neither has desire nor incentive to do R.D. extension. It is difficult to impose a new philosophy (human development) upon an old structure (production science).

Advantages in having another government department or agency responsible for the R.D. program are that personnel can be attracted whose interests, training and motivations are in keeping with the R.D. human development approach. A new organization, with new objectives unfettered by old, will not have to overcome the momentum or inertia of past policies and programs.

The major disadvantage involves the fact that another government department or agency may be looked upon as one which does not have the feel for the area or the people that the A.D.A. may have. The contact entry points into the R.D. program may be lessened or lost. The department or organization may be tainted with an 'ivory tower' or 'welfare' or some other label which reduces public participation.

The structure will be the same whether the A.D.A. or some other government department or agency administers the R.D. program. The multi-disciplinary team which is gathered from different areas will have the same composition. The difference lies in the philosophy and approach of the administering department.

Conclusion

In view of current interests and emphasis in the A.D.A. extension field force, our study team favours the R.D. program being carried out by a multi-discipline self-contained unit within the Department of Social Development. Those in the A.D.A. who like human resource development work should transfer to this unit. However, the final choice of Department depends also on 'grass roots' acceptance by farm units. This has to be determined.

(c) Programs

It is impossible to detail a complete programing guide for both the M.F.D. and R.D. programs. However, the basic guidelines we suggest are as follows:

(i) M.F.D. Program

Farm Unit - 'emerging': ability and initiative to learn productive science, business management, family life techniques plus gain data search and analysis skills in all three techniques.

Age Limits on Operator and Family - none

Educational Background Limits on Operator and Family - none

Sales, Assets or Income Cut-off - none

Length of Training - 3 years (the current A.D.A. farm management/CANFARM counselling period).

Type of Training

- pre-formal: upgrading basic education to Grade 10 level.

- formal: two lecture courses each year: one production science, one business, leading to certification as a 'managerial farm unit operator.'
- informal: monthly counselling by M.F.D. personnel for 3 years.

Credit - commensurate with 3-year farm unit development program as mapped out by the farm unit and M.F.D. personnel. Presumably the farm unit would qualify for credit under the Task Force's "Rural Development Credit Agency."

Drop Outs - for reasons of lack of initiative, failure to pass formal training courses, inability to effectively utilize help from M.F.D. personnel, or inability to obtain adequate credit to implement a farm unit development program.

(ii) R.D. Program

Farm Unit - 'adjusting-out': a decision to withdraw from agriculture though not necessarily from the district.

Age Limits on Operator and Family - none

Educational Background Limit on Operator and Family - none

Length of Adjustment Counselling - 3 years

Types of Training

- formal: job skill retraining for agricultural technician or for small town-based vocations such as carpentry, electricity, plumbing, or service industry work.
- informal: intensive counselling by R.D. personnel.

Credit and Grants - to assist retraining; for family unit assistance; for early retirement assistance; 'exploration grants' to cover travel and living to investigate jobs outside the community in neighboring polarized growth centres or those farther away.

(d) Approach to Electronic Communication and Personal Contact

The impacts of the information explosion and more sophisticated extension wants and needs have been noted. Personal contact of extension worker and recipient is time consuming and will be too time consuming to maintain on a large scale in the future. This will be especially true in the area of information extension. Where information alone is extended or where interpretation, guidance and motivation will follow information, such information can be more widely and quickly disseminated via electronic communications techniques.

Such a change requires a shift in responsibility and initiative for information seeking onto the farm unit operator. This is most relevant in regard to managerial farm units and emerging units in training to become managerial farm units.

A problem may arise if there is a bias against greater use of non-face-to-face communications media such as the telephone. Extension recipients may resent the loss of personal contact in the information extension process. If this is true, there may be an attitude problem which has to be solved by conditioning. However, our farm operator contacts indicate that there is a favorable attitude toward electronic communications. In certain areas of the Province, information is often sought by managerial farm units by telephone directly from Research Stations. The emerging farm unit has the necessary initiative to participate in the M.F.D. program. He cannot afford to and will not have an unfavorable electronic communications bias.

Although it is unlikely that electronic communications will raise any unfavorable bias, as a transitional device from 1971 to 1975, the existing face-to-face system and our new electronic communications system should 'run parallel.' This

means that extension workers will carry on in the old manner of personally handling information requests of regular commercial farm units until a data bank and communications group are in full operation. For emerging and adjusting-out farm units, face-to-face contact will be increased not lessened in addition to using electronic communications. Top commercial farm units, large scale hobby and part-time farm units will continue to seek out information from any and all sources and will utilize electronic communications when such are in full operation.

7. STRUCTURE AND ROLE - PRESENT AND FUTURE

The extension efforts of the future will involve not only changes in objectives, policies and programs, but changes in techniques of extension communication. To facilitate these changes some new organizational structures will have to be brought about and existing structures modified.

(a) Government Structures

(i) Present Farm Unit Counselling Structure (Chart 5-1)

The Departments of Agriculture, Social Development, Youth, Lands and Forests, Municipal Affairs, Health, and Education and the Human Resources Development Authority (H.R.D.A.) together make up the main structure of government departments counselling farm units. This structure serves farm units which are seeking physical resource technology and human resource counselling.

Extension from the Department of Agriculture originates in all seven Divisions primarily through Regional Specialists and Supervisors and from the Extension & Colleges Division through the district extension personnel, agricultural engineers and the leadership training section. Most of the extension efforts of the Department are directed towards providing the producing unit, family unit and community unit with information, interpretation, guidance and service in the physical resource areas of production science and farm management.

The Department of Social Development provides information, guidance and service to farm units through their regional offices primarily to family units on welfare. Farm family units on welfare are almost negligible in the south of the Province. Even in the northern portion of the Province, the number of farm

family units on welfare is relatively small. Farm units generally possess asset levels exceeding those for qualifying for welfare. However, in time of grains surplus and cash being tight, the rule concerning asset levels has been relaxed somewhat.

The Department of Youth's major extension input goes into the human resource counselling area through 4-H Clubs.

H.R.D.A. serves farm units seeking human resource counselling through community development officers. Activities have centred mainly in A.R.D.A. program adjustment 'pockets' such as Edson in C.D. 14 and Slave Lake in C.D. 15.

The Department of Lands and Forests engages in extra-regulatory extension activities to the producing unit seeking physical resource technology. This activity is concerned with community pastures and grazing leases.

The Department of Municipal Affairs has agricultural field men who provide an extra-regulatory extension service to producing units seeking physical resource technology help centering on weed control.

The Department of Health provides an extension input to farm units seeking human resource counselling through Public Health Nurses in M.D.'s.

The Department of Education provides an extension input through its Division of Vocational Education by offering formal education upgrading courses through the Alberta Vocational Training Centres and non-formal adult education vocational, business and agricultural courses in conjunction with Canada Manpower.

(ii) Future Farm Unit Counselling Structure (Chart 5-2)

The major change in structure will be clear separation of, or distinction between, those farm units which will be assisted by a regional technology structure and those farm units assisted by a regional development structure. Chart 5-2 shows the Alberta government departments which should be counselling these different types of farm units in 1975, 1980. It is not sufficient to counsel farm units to the point where the decision "to remain in agriculture" or "get out" is made without providing some organizations and programs to facilitate both.

Both the Regional Technology Structure and the Regional Development Structure require multi-disciplinary approaches. The problem arises of how to attract a multi-disciplinary staff which can function effectively. The problems of constructing such a staff by seconding individuals into an ad hoc task force type of organization have been noted previously. The best solution is to gather together a multi-disciplinary team within one government department. This will minimize the divided loyalties which can plague an ad hoc task force type of structure. To do this, however, requires that interdepartmental transfers of personnel within the civil service become much freer and acceptable to the individuals involved. It is suggested that interdepartmental transfers of staff be made possible and that this type of mobility will be acceptable and desired by individual civil servants if it is explained that future advancement and recognition is tied to governmental and not departmental upward mobility.

The Regional Technology Structure's function will be the promotion of economically viable farm units. As

such the Regional Technology Structure will require the major input from the A.D.A. with minor inputs from the Departments of Municipal Affairs and Lands and Forests. The extension motivation and education efforts of the Regional Technology Structure will be directed towards the developing farm units which are 'emerging.' Managerial and semi-commercial farm units and country residents are 'on their own' to take the initiative in accessing data bank, research, and other information sources.

Lest readers feel that vast numbers of farm operators are about to be 'cast adrift' by the government extension service, keep two things in mind:

- few except regular commercial farm units are served at present; and,
- all farm units will be given easy, speedy access to the best information data bank possible and channels will be thrown open to all researchers.

A.D.A. extension workers will still be available. However their prime concern will be with 'emerging' units.

A strong viable farm unit in many ways minimizes the problems of the family unit and the community unit. The A.D.A. will focus the necessary motivation, information, guidance and service on the 'emerging' farm unit. Such presents a major challenge to the time and experience of A.D.A. extension staff. They will all need some upgrading to 'Specialist' rank in production science and farm technology. They will need some sensitization and motivational training. BUT ABOVE ALL, THEY WILL HAVE A CLEAR CUT JOB TO DO. THEY WILL CONCENTRATE ON SUBJECT MATTER THEY LIKE. THEY WILL RECEIVE PROPER RECOGNITION.

The Department of Municipal Affairs through the Field Service Branch, and the Department of Lands and Forests through Public Land Appraisers and grazing reserve and community pasture work presently provide inputs to farm producing units. These activities are primarily regulatory in nature. However, in some instances extension is provided, principally the extension of personal operating advice. Perhaps there is scope here for these activities being carried out within the A.D.A. by interdepartmental transfers of personnel. This would avoid duplication of effort (regulatory as well as extension) which occurs to some extent. However, the duplication of activities is not extensive and the present situation appears to be workable. If duplication of effort becomes excessive in certain areas of the Province, then activities and personnel should be consolidated in the Regional Technology Structure within the Department of Agriculture.

The function of the Regional Development Structure will be to promote the orderly adjustment of human resources in regional areas. This will include the transition of farm units out of agriculture, though not necessarily out of the district.

The Regional Development Structure will require multi-disciplinary teams which are capable of effectively dealing with the problem of adjustment out of agriculture. These will be much broader teams than those of the Regional Technology Structure which requires a predominantly agricultural input. Sociological, psychological, communications and other skills must be added in depth to agricultural skills.

The adjustment-development process will not be instantaneous or even of short duration. Therefore, transitional programs for farm units will have to be

available and implemented. These transitional adjustment programs will require an agricultural input as the key (non-welfare) point of entry!

Considerable 'transitional' extension effort will also be required by family and community units. The Home Economics Branch of the Extension & Colleges Division presently provides some of these inputs to family and community units and could provide them within the context of a Regional Development Structure.

Agriculturists can supply farm unit operations with evaluation inputs, that is simplified farm business analysis to show the operator a realistic picture of his circumstances. This may be the first stage of counselling to 'adjusting-out' farm units. This may be the contact entry point.

Non-agricultural inputs will be required in sensitization and motivation. This means encouraging constructive concern in people regarding their problems and prompting them to do something about them. D.S.D. and H.R.D.A. have individuals who possess these skills but in many instances without agricultural skills. Thus the combined agriculturist/sociologist type of team is necessary. Therefore A.D.A., D.S.D. and H.R.D.A. skills need to be transferred to a new group in one of these Departments. (We are not experts in management structures but to put H.R.D.A. on an equal footing, it would seem necessary to change it from an 'Authority' to a 'Department.')

The D.S.D. does not have the agricultural production or farm management emphasis which prevails in the Department of Agriculture. Yet agricultural contact entry points are necessary. Contact entry points are personal. Few in the A.D.A. extension field staff presently work with the 'adjusting-out' farm unit, nor

do they want to in future. On the other hand, the multi-disciplinary team which has the psychological and sociological inputs to the family and community units will not be complete without the agricultural input. Through interdepartmental transfers of personnel then, it will be possible to construct the multi-disciplinary Regional Development Structure.

The Regional Development Structure has been considered primarily in the role of farm adjustment. In fact, its scope could broaden considerably to include all types of adjustment and development within a region. Thus it could ultimately end up as a responsibility of a Department such as one proposed for "Environmental Improvement."

(iii) Future Advisory Structures (Chart 5-3)

A new advisory structure will be needed. We have introduced a Regional Extension and Research Advisory Council at the senior headquarters level of the A.D.A. This Council would be formed with representation from managerial farm units, the A.D.A., universities and colleges, the Canada Department of Agriculture, agri-business, and commodity commissions. The present Alberta Agricultural Co-ordinating Committee (A.A.C.C.) can be expanded and renamed. This Advisory Council would help to co-ordinate extension and research activities applicable to commercial agriculture.

The Advisory Council would provide guidelines for extension efforts directed towards the potentially viable (emerging) farm unit. By receiving direction on such extension from the managerial farm unit representatives, extension members of the Advisory Council will be in a better position to reach a consensus about their extension priorities and the various roles each will play. Such a Council would also allow the various sectors of

Alberta agriculture to interact and understand one another's extension role. This would increase the effectiveness of extension efforts by eliminating unnecessary duplication and indicating where increased efforts should be applied.

Discussion here is only in regard to directions and trends of extension education. The Minister and the A.D.A. would still implement government policies on their own as is their prerogative.

A Regional Resource Development Advisory Council should also be formed. This would be advisory at the policy level to whichever department is made responsible for the Regional Development Structure. The Council would be advisory at the headquarters level in matters concerning long-range planning and general directions of approach to regional development problems. The result would be the establishment of extension priorities in regional development.

Both Advisory Councils would have Sub-Councils in regions throughout the Province. Such Sub-Councils would be advisory to government extension field operation regional offices. Sub-Councils would elect some of the representatives to the Provincial Council. The Provincial Council would co-ordinate the advisory work of the Sub-Councils.

(b) A.D.A. Internal Structure

(i) Present Structure (Chart 5-4)

The present internal structure of the A.D.A. shows seven Divisions of the Department responsible to the Minister of Agriculture through the Deputy Minister. The Plant Industry and Animal Industry Divisions perform regulatory functions and also extension functions through Specialists and Supervisors at the Regional and District levels. The Program Development Division provides inputs to A.D.A. extension activities at the

Regional and District levels through the devising of new programs and supplying of some personnel. The Agricultural Economics Division supplies inputs at the Regional and District extension levels via information guidance and service extension by Regional Farm Economists and headquarters staff. The Water Resources and Veterinary Services Divisions are engaged in regulatory activities primarily, although both do provide some extension to farm units. However the Extension & Colleges Division is the primary extension vehicle for the A.D.A.

(ii) Future Structure (Chart 5-5)

This Chart shows major internal changes in the A.D.A. structure. To co-ordinate extension activities effectively and minimize duplication of extension effort within the A.D.A., a conscious effort has to be made to consolidate all extension activities within the Extension Division. This Division has the primary responsibility for extension. The other Divisions would be freed to concentrate upon regulatory and non-extension functions. It may be that extension in the broadest sense of the word cannot be completely divorced from regulation. However, all obvious extension activities and programs should be carried out by the Extension Division.

The Agricultural Economics Division's main function is in the extension area as has been shown by its historical growth and analysis of its activities. Farm unit-centred activities carried on by the Farm Management Branch (such as CANFARM); information retrieval techniques being developed by the Systems Design and Data Analysis Branch; crop reports and marketing education of the Marketing and Statistics Branch all have a close alliance to future extension activities required of the Extension Division.

The Program Development Division's activities are also predominantly in the area of extension. Land assembly and farm adjustment activities of the Resource Conservation and Utilization Branch; the commodity commission activities of the Agricultural Products Marketing Council; the co-ordination of agricultural service boards by the Municipal Agricultural Programs Branch; and the liaison carried on by the Irrigation Secretariat all have relevance to future extension activities.

Supervisors and Specialists in 'regulatory' Divisions, such as Plant Industry, who are performing primarily extension functions should be transferred into the Extension Division. Liaison with 'regulatory' Divisions will be essential. But the primary future function of Supervisors and Specialists is extension. They must be fully integrated into the Regional Technology Structure.

If the A.D.A. becomes responsible for the Regional Development Structure, then the Extension Division should be responsible for it. It should be a unit separate and distinct from the Regional Technology Structure because extension information, interpretation, guidance, motivation and service will, in the main, be very different. This is not to say that liaison between the groups will not be necessary.

The dividing line between the farm units which are counselled by the Regional Technology Structure and the Regional Development Structure will be established by 'grass roots' demand. In other words, the farm operator and his family will decide which program to register for. Economics and farm unit operator initiative will determine who and how many will be handled by each Structure.

(c) Extension & Colleges Division Internal Structure(i) Present Structure (Chart 5-6)

Reporting to the Director level is an Associate Director, an Accounts Supervisor, and the Director of the Agricultural and Vocational Colleges Branch. The other four Branches; the District Agriculturist, Home Economics, Agricultural Engineering and Information Branches, report through Branch Heads to the Associate Director of the Division. Also reporting to the Associate Director is the Leadership Training "section." There is a co-ordinator of Agricultural Education who is responsible to the Director of the Agricultural and Vocational Colleges Branch.

The Province is divided into six operational Regions and each Region into Districts. The Regions are:

<u>Region</u>	<u>Headquarters</u>
1 Southern	Lethbridge
2 South West	Calgary
3 East Central	Divided among Regions 2, 4 and 5
4 Central	Red Deer
5 North East	Vermilion
6 North West	Edmonton
7 Peace River	Fairview

The Regions are primarily Extension & Colleges Division creations. The other Divisions of the A.D.A. place Specialists, Supervisors and Farm Economists in some Regional Headquarters. Each Region is headed by a Regional Agriculturist who is responsible to the Head of the D.A. Branch. Personnel from three Branches staff the Regional teams:

- D.A.'s are responsible to the Head of the D.A. Branch and in some vague ways to the R.A.'s;
- D.H.E.'s are responsible to the Head of the Home Economics Branch; and,

- Agricultural Engineers are responsible to the Head of the Agricultural Engineering Branch.

As a result, the R.A.'s are presently without direct authority over key staff in their Regions. It is to their credit how well they have performed in a role that is managerially untenable.

Within the Districts, the D.A. or D.H.E. has considerable autonomy. Regional programs, other than those which emanate from Divisional or Departmental Headquarters are really amalgamations of District programs. The Regional Agriculturist has no regional programs, and even if he did, he has no direct authority to implement them.

Some say that it is not desirable for Regional Agriculturists to have greater regional authority. Some say that centralization is the trend elsewhere such as in the odd U.S. state. As there is more diversity among regions in Alberta than there is among the Prairie Provinces, can anyone argue seriously for increasing centralization of authority at Headquarters?

(ii) Future Structure, 1975 (Chart 5-7)

Under the proposed organizational structure for the Extension Division in 1975 the 'Colleges' aspect will be dropped from the name of the Division. The 'agricultural colleges' will become essentially extension centres with some farm technician training programs.

Centralization and Decentralization and A.D.A. Headquarters

In devising a new structure for the Extension Division, we take basic organizational management principles into consideration. First there must be strength at both regional and headquarters levels in any system of decentralization. So we give the Regions autonomy

in program development with commensurate budget control. The Extension Division Headquarters then has the Alberta Data Bank, the Extension Communications Group, and some input of agricultural courses to the Alberta Extension Centre added to supervision of Regional extension offices. The Executive Committee of the A.D.A. at Headquarters will take on increased responsibility as the top level internal group formulating extension policy, interacting with the Regional Extension and Research Advisory Council, and back-stopping the Director of Extension.

At A.D.A. Headquarters, Divisions other than Extension will feel that their losing control of field extension specialists or loss of Division status is a far cry from having "strength at Headquarters." We honestly feel that consolidation of extension functions within the Extension Division will result in better programs and closer co-ordination of effort among individuals and teams because segmentation by Branch or Division structure has been removed. We are striving to 'streamline' to get the most effective information 'delivery system' for the gigantic extension job of upgrading emerging farm units.

But the 'streamlining' will not work unless the Directors of all the Divisions working with the Deputy Minister replace any loss of Divisional manpower or status with a frequently meeting, assignment-centred Executive Committee. Thus in matters concerning extension, the Extension Division becomes the operating arm of the Executive Committee. The Director is responsible to the Committee for the carrying out of priorities or co-ordination agreed upon by the Committee. The Deputy Minister will have to act as arbiter in case the

Extension Director gets overloaded with program requests. However this should not happen. Remember that the focus of A.D.A. effort is now concentrated on the developing farm unit only. The present broad spectrum of programs will narrow down and be specific to this type of farm unit.

The various Branches of the Agricultural Economics Division will be converted as Branches or better yet as 'teams' to the Managerial Farm Development (M.F.D.) Program Extension Secretariat. Most of the functions of the Program Development Division can be transferred into the M.F.D. Secretariat also but skills pertinent to farm adjustment and land consolidation belong in the Resource Development Program (R.D.P.) Extension Secretariat. The purpose of a secretariat is to provide subject matter upgrading, Program methodology, and Program feedback to the Director, the Executive Committee, and the Regional offices.

The Extension Division will lose direct control of two Branches and perhaps eventually part of another. First, the Information Branch will become part of the Extension Communications Group and the Alberta Data Bank. Second, the Agricultural and Vocational Colleges Branch will phase out as the College facilities are transferred out of the A.D.A. Third, interests of some of the D.H.E.'s may have greater applicability in R.D.P. extension. If the R.D.P. is not carried out by the A.D.A., then part of the Home Economics Branch will transfer to the Department given the mandate. The remainder will have already integrated into M.F.D. programs at the Regional level.

The Extension Director's need for a direct line management connection with Regional Agriculturists will move the Associate Director and Head of the D.A. Branch into key positions in a secretariat. Leadership Training would also move into a secretariat.

Although not shown on Chart 5-7, there would be a 'paper-work, administrative organization' structure to service Headquarters and the Regions to let extension people at all levels get on with the business of extension.

Centralization and Decentralization and the Regions

It is difficult for a regional or field extension worker to identify with the very broad goals of the Department or the Extension Division. So we have set up a distinct target group: the emerging farm unit. The job is to upgrade this unit to managerial farm unit status.

A decentralized approach to Provincial extension embodied in the A.D.A. Regions already set up means the following if the system is to work:

1. a single authority over the head of each Region, which can also be stated as a reduced number of management levels between front line worker and Headquarters;
2. all relevant specialists at the Regional level must group as an effective 'team' reporting only to the Regional head;
3. the Regional head must have adequate staff, budget, and authority in equal proportion to responsibility;
4. there must be a means for subject matter upgrading of Regional specialists;
5. Management By Objective (M.B.O.) and Management by Commitment (M.B.C.), by which objectives, policies and programs are implemented, must recognize the abilities, values and aspirations of regional workers and reflect what they want to do together; and,

6. . . there must be provision for 'top down' as well as 'bottom-up' decision-making.

Our new structure answers all of these requirements of the system. Points (1), (2) and (3) have been covered or are evident in Chart 5-7. Point (4) refers to use of the secretariat and joint appointees. Basically joint appointees will be Regional Extension Specialists (to which all A.D.A. field extension workers will be upgraded) released from Regional duties to spend 50 per cent of their time in dialogue with university researchers and 50 per cent in upgrading fellow specialists. Details are contained in the next Chapter on "University and College Extension."

Points (5) and (6) are interrelated. The Regions must have freedom of action to develop effective programs to meet 'grass root' wants ('bottom-up' decision-making). On the other hand there is the need of government to implement policies having total province or inter-provincial significance ('top-down' decision making). Further there must be co-ordination among Regions on upgrading programs such as M.F.D. and such a program must have a basic Provincial policy subject to Regional adaptation. The critical man in the flow from top-down or bottom-up is the Director of Extension. He has a responsibility to Regional Agriculturists to see that the senior level at Headquarters is sensitive to the needs of regional programing. He has a responsibility to the senior level at Headquarters to see that Regions handle urgent policy matters.

Program formulation centres at the Regional level with top-down inputs on policy and support from

the Director and bottom-up input from field workers who are the people on the 'firing line.' Currently such workers must choose their emphasis in and among a multitude of programs of their own and other Divisions. With future specific emphasis on developing farm units we feel that their personal flexibility can be increased within this main program and their risk of criticism regarding choice among programs considerably reduced.

Regional Restructuring

The Regions will exist as they do now. Regions 1, 2, 4, 5, 6 and 7 will be operable. However Region 3 should be absorbed by Regions 2, 4 and 5. The rationale behind the choice of the present Regions is sound and it should continue to be workable in terms of either face-to-face or electronic communications.

An increasing reliance upon electronic communications will be made with the initiation of the Extension Communications Group on the University of Alberta campus and the Alberta Data Bank at A.D.A. Headquarters. This electronic communications network will become operable in stages to 1975. It will, during this period, be an extension network which operates parallel to the face-to-face communications network now in existence in the Regions. When this new electronic extension network is proven operable, a phased withdrawal of certain parts of the face-to-face extension network can begin. Essentially this means encouraging regular commercial farm units to access the data bank and researchers directly. This frees the D.A. and D.H.E. to counsel the 'emerging' farm unit.

M.F.D. Structure in Southern Region 1

Phased withdrawal of the face-to-face extension network could begin in the Southern Region in 1973.

The Southern Region is felt to be best equipped to handle the initial 'regional extension clinic' trial approach. The central location of Lethbridge means that geographic communications links with the regional farm units will not be too extreme for drive-in or fly-in face-to-face contact.

The Southern Region also has additional extension sources which are well-developed and used to a considerable extent at present. The Lethbridge Research Station is already used by a substantial number of managerial farm unit operators. Lethbridge Community College has a good base of agricultural courses set up now. Agri-business is already engaged in extension activities, especially to producers of row crops.

The Regional office, Lethbridge, would become a 'Regional Extension Clinic.' Districts would phase out. In terms of both face-to-face and electronic communications networks, such 'clinic' centralization within the provincially decentralized extension structure will be possible and desirable to serve the needs and wants of developing farm units in Region 1 in 1975 and thereafter. This means that a regional team of specialists in all areas of agriculture and home economics must be ready to implement a clinic approach. (It means that a regional development structure must be ready also.) The first step is a concentrated program of specialty upgrading for all Region 1 extension workers from 1971 through 1975. Production science, farm management and sociology as these apply to the 'emerging' farm unit must be stressed.

The managerial farm unit in Region 1 will receive A.D.A. extension assistance only if requested

and A.D.A. time is available. Physical contact will not be made on-site, but at the Regional Extension Clinic for this type of farm unit.

Until centralization into Regional Clinics is proven effective in Region 1, the remaining A.D.A. Regions in the Province would continue to operate in their existing manner, with Districts. Some, if not all Regions, may retain a few Districts long into the future. Such would be warranted for reasons of remoteness.

R.D. Structure in Region 1

The R.D. Program in Region 1 will also be centralized but into a 'Regional Development Clinic.' The Resource Development Program Group, a team of specialists and lay workers, would be located in the Regional Development Clinic. They would operate independently and separately from the M.F.D. Group but with cross-over co-ordination liaison. Extension in the R.D. Program will require a much higher degree of face-to-face contact than in the M.F.D. Program. The extension of information will assume lesser importance relative to the extension of motivation, guidance and service.

Face-to-face contact cannot be supplied entirely by professionals on the specialist team. The R.D. Program could be considerably broader than farm adjustment and be too extensive involving too many individuals. The bulk of the face-to-face extension will have to take place through sub-professionals and lay workers. Motivation can only be partially instilled from without; ultimately it must be generated from within.

The R.D. and M.F.D. Programs, although separate and distinct, must come together at some level. If the A.D.A. performs both roles, then the R.D. and M.F.D.

Programs must come together at the Regional level. The Regional Agriculturist in charge of the Regional M.F.D. Extension Clinic will also be in charge of the Regional Development Clinic, although the operation of the two specialist task force groups must be kept separate. This may create administrative problems. However co-ordination and liaison of the two separate Programs at the A.D.A. Headquarters level is not likely to be any more effective.

(iii) Future Structure, 1980 (Chart 5-8)

By 1980, the process of regional centralization within the provincially decentralized extension structure should be complete. Each of the six Regions should have phased out most District offices and developed Regional M.F.D. Extension Clinics staffed by teams of specialists. By 1975, the initial trial in Region 1 will indicate how transitional problems can best be solved. Also, the electronic communications network will be completely operable enabling withdrawal of portions of the District face-to-face communications network. If the A.D.A. is also responsible for the R.D. Program, then each of the six Regions will also have a Regional Development Program (R.D.P.) Group operating from it.

It is unlikely that communications, methods of transportation, or the needs and wants of regional farm units and individuals will have changed drastically enough to warrant further consolidation and centralization into fewer Regions. The Regional boundaries may not remain exactly as they now exist by 1980 or even by 1975. But the Regions as now constituted will be viable at least until 1980 within flexible limits.

(d) New Roles of the A.D.A.

Several new roles will have to be assumed by the A.D.A. and Department personnel. These new roles might almost be

considered as future statements of policy in that they indicate the new techniques and directions that extension will take.

(i) Distinction between types of Farm Units

The A.D.A. must officially recognize that there are different types of farm units which have different wants and needs. Distinct programs will then be formulated to handle the different types of farm units. The A.D.A. will provide more and more complete programs to 'emerging' farm units. Other categories of farm units will receive lessening assistance other than that available through 'universal access' sources such as the Alberta Data Bank. A.D.A. policy will explicitly state what extension workers have been saying for a long time that "extension cannot be all things to all people."

This distinction between types of farm units is explicitly recognized by the separation of the M.F.D. and R.D. Programs. Decisions will have to be made by the developing farm unit operator as to what course of action his farm unit will take. He is then free to participate in the M.F.D. or the R.D. Program. Whether he 'hangs in there' on either program will depend on his own initiative and the economic odds 'for' or 'against' him. NO ONE WILL PREVENT ANY FARM UNIT OPERATOR FROM REGISTERING IN EITHER PROGRAM.

If a farm unit changes its mind and decides to try to 'emerge' into the commercial category, then it will be transferred to the M.F.D. Program group. The reverse will hold true for a farm unit which makes a new decision to 'adjust out' after initially being in the M.F.D. Program.

The M.F.D. Program has to keep in mind that its function is to assist developing farm units which are

'emerging' into the commercial category. Once these farm units achieve an economic viability, extension efforts are gradually withdrawn.

(ii) 'Grass Roots' Opinion

The A.D.A., utilizing various methods, will increase its present emphasis on the surveying and utilization of 'grass roots' opinion in program formulation and subsequent evaluation. The wants of farm units will be clearly understood whether planning programs to directly meet these wants or planning programs which are needed but may be somewhat in conflict with the wants. As a part of the 'grass roots' approach, the A.D.A. will keep in mind that the opinions of those not utilizing A.D.A. extension facilities must be monitored.

(iii) Communications: ALBERTA DATA BANK

A third new role which will be assumed by the A.D.A. involves increasing reliance upon electronic communications for information dissemination. The process may not be totally electronic in terms of retrieval and dispersion of information. But information requests will decrease via face-to-face contact and increase via telephone. The Alberta Data Bank (A.D.B.) will become the focal point of print information extension.

It should be remembered that this will be only information dissemination and not teaching. Is there a need for some assurance that learning will take place among managerial farm units? Yes! By an array of 'data search technique' and 'problem analysis' courses put on at the Alberta Extension Centre at Olds. This Centre will be the focal point for classroom instruction.

Alberta Data Bank (A.D.B.)

In 1971, the A.D.A. should begin expanding its Information Retrieval System into a data bank. Lest

this term concern anyone regarding costly intricate computerized retrieval systems, the 'data bank' can initially be a manual 'library.'

The basic input to the A.D.B. would hopefully be a master library catalogue (in some future year, a master computer tape) from the C.D.A. Information Branch. This Branch has already started its CANADEX. To-date the data in it is largely 'internal C.D.A.' i.e., from Research Stations and C.D.A. Branches. The C.D.A. maintains a library in Ottawa which has a nucleus of data, somewhat outdated and not used enough. Despite the need for broadening and upgrading, the basic master catalogue is there in the C.D.A. library and CANADEX. The C.D.A. desires a viable national role in agricultural servicing (witness CANFARM): a "Canada Data Bank" should appeal. National and international data collected and catalogued by the C.D.A. data bank could be accessed by the Alberta Data Bank. An access fee would be charged and the information would be reproduced or loaned for a sales or a rental fee. The information would be mailed, expressed, telephoned, telexed, teletyped, teleprinted or remote computer terminal accessed.

The A.D.A. should dialogue with the C.D.A. on a 'data bank exchange.' However, regardless of whether the C.D.A. is prepared to act promptly, the A.D.A. must immediately begin building its own data bank.

The Alberta Data Bank would superimpose Provincial data on any retrieved from the C.D.A. Further inputs would include regional adaptations of other extra-provincial data as well as original research done by universities, colleges, agri-business, consultants, and farm organizations in Alberta.

Managerial farm unit operators, M.F.D. Groups, R.D.P. Groups, commodity organizations, agri-business, consultants, universities and colleges, Farm Business Associations and any other organization or member of the public at large may access the Alberta Data Bank. Fees would range from 'annual bulk data retainer' arrangements with organizations to 'limited annual retainers' or 'one shot request fee' arrangements with individual farm unit operators.

Access will be basically of two types: routine and random. The former encompasses repeat questions which can be pretaped for automatic electronic access; the latter requires library search assistants to track down data.

ROUTINE ACCESS

Types of Information Requested

Market price and volume reports
Details of agricultural policy or
regulatory changes

Methods of Access

In person requests at Data Bank
Telephone-tape recorder: canned (pre-recorded) output
Telex: canned output
Teletype: canned output
Computer: canned output
Letter
Telegram

Time Interval

'Real time', i.e., immediate

RANDOM ACCESS

Types of Information Requested

Simple questions in the areas of science, technology, business, sociology, et cetera
Complex questions in the above areas

Methods of Access

In person requests at Data Bank
Telephone
Telex

Teletype
Computer
Letter
Telegram

Time Interval

'Real time' for simple requests
'Delayed time' for complex requests

The A.D.B. will be subject to 'universal access' that is, anyone or any organization can request information. Since this communications system eventually will in part be replacing the face-to-face communications system of the District offices, there will be a greater onus on the individual to initiate access. It is recognized that this may require some conditioning. Managerial and emerging developing farm units must get used to the idea that information is not going to be brought to them. They have to actively initiate the process. The former are 'self-starters' anyway. The latter will be counselled in data search techniques as part of M.F.D. Programs. For both, it will be necessary to publicize the availability of the A.D.B. and courses will be needed at the Alberta Extension Centres in information retrieval technique in order to get the most out of the A.D.B.

The information contained in the A.D.B. must be valued by recipients. It must be up-to-date, of good quality (which usually means practical), and be readily accessible or disseminated. To meet these criteria effectively, the A.D.B. must utilize all pertinent world-wide information sources that can practically be handled. The indexing system must be simple, expandable and capable of manual or computerized access.

The present trial of the Information Retrieval System carried out by the Program Development Division has not been overly successful in terms of large numbers

of requests for data. It must be kept in mind however, that individuals outside the A.D.A. do not have access. In fact, the facility is not available outside of A.D.A. Regions 4 and 5. It must also be kept in mind that only one information source, the University of Alberta, has been tapped. These are formidable shortcomings and the concept of an information retrieval system such as the A.D.B. should not be judged in terms of the success to-date of the A.D.A.'s Information Retrieval System.

Sample annual operating budgets for the A.D.B. on both manual and computerized bases are set out below. Neither budget is exorbitant.

ALBERTA DATA BANK

Annual Operating Budget

Manual and Computerized Systems

Agdex Classification

	<u>Manual System</u> (\$) (Rounded)	<u>Computerized System</u> (\$) (Rounded)
Rent for office space plus utilities: 2,000 sq. ft. @ \$8/sq. ft.	16,000	16,000
Documents: 9,900 @ 10 copies each @ 25¢ per copy	25,000	25,000
Text books: 100 @ \$10 each	1,000	1,000
Chief Librarian (5-10 years experience)	12,000	12,000
Librarians (new graduate)	28,000	21,000
Secretarial and Clerical	20,000	10,000
Mail-out expense: 56,000 pieces of data @ 50¢ each	28,000	28,000
Miscellaneous supplies, office equipment	7,000	7,000
<u>Telephone - Routine Access</u> 3 lines, tape units, listings in all Alberta directories	1,300	1,300
<u>Telephone - Random Access</u> 3 lines, 'Zenith' number	29,000	29,000

	<u>Manual System</u>	<u>Computerized System</u>
	(\$)	(\$)
	(Rounded)	(Rounded)

Computer Costs:

<u>Read-in</u> (70,000 seconds @ 10 characters per second @ \$11 per hour)	---	200
<u>Storage</u> (10,000 documents, @ 1 document per line, 70 characters per line, 3,000 characters stored for \$1.50 per month)	---	4,200
<u>Data Retrieval</u> (56,000 information requests per year, 2 seconds computer time per request @ 60¢ per second)	---	67,200
TOTAL COST	<u>167,300</u>	<u>221,900</u>

(e) New Roles of Extension Personnel

The factors which will dictate changes in structure will also dictate changes in role for extension personnel.

(i) Specialist, Not Generalist

The most noticeable change in role for extension personnel will be the demise of the generalist and the staffing of the M.F.D. Program and the R.D. Program with specialists. Such specialists in most cases will be generalists already in the A.D.A. extension service who desire upgrading to specialist. The issue of generalist versus specialist has been clearly decided in favour of the latter in our study and the issue must be clearly confronted by the A.D.A. in the future.

Careful matching of staff and course upgrading will be necessary to handle the job. Existing staff must state preferences as regards specialties. If an extension worker can name his or her specialty; be upgraded, receive recognition; then the whole A.D.A. extension service should "turn on!" That means seeing a clear cut meaningful job to be done and enjoying doing it!

Staff turnover will drop! Regional 'teams' will begin to build!

The major factor which will change the nature of the extension worker's role is increased sophistication in Alberta agriculture. This will have two primary effects:

1. the wants and needs of managerial farm units will become ever more sophisticated and,
2. pressures to become sophisticated will cause other farm units to work hard and fast to upgrade or decide to adjust-out.

A.D.A. extension field force centralization will take place within a provincially decentralized Regional structure. This recommendation and specialization on the part of Regional extension workers go hand in hand. They both stem from the need to have an extension structure and its extension personnel which can effectively deal with the problems of an increasingly sophisticated agriculture industry and the resultant regional problems.

The generalist extension worker has sometimes been likened to the general practitioner in the medical profession. This analogy falls short in that medical practitioners deal with all individuals in all of society who have any kind of disease problems regardless of their wealth or position in business. In agriculture there is increased segmentation into distinct types of farm units and commodity groups with problems peculiar to each type. They cannot go to generalists for answers. More so than in medicine, there is increased need for the specialist.

It is widely recognized by extension workers that they cannot be all things to all people. The present

system of generalist extension workers in Districts supplemented by specialists in Regional centres recognizes this situation. The generalists voice the opinion that they cannot be specialists in all or even many areas. Yet, many of the District extension workers want the Regional Specialists and Supervisors to counsel the farm unit through them. If this were to be carried on to a great extent it would clearly be a situation where the generalist is trying to upgrade himself so he will be a 'specialist in all things.' This type of motivation is laudable, but not possible.

The experience of the Co-operative Extension Service in the U.S. has some relevance to extension in Alberta. Walter L. Slocum in the Fall, 1969 Journal of Co-operative Extension points out that early County Agents (our D.A.'s) were experts (or, if you will 'specialists'). The information they taught was highly relevant because farm operators were poorly informed on even simple farm techniques. Their relationships with the recipients were direct and personal in nature. They knew personally those they were assisting in and outside of the producing or family unit setting. The local agents did not have identity problems. They were part of the community and identified with local social systems. They were similar in background and outlook with other County Agents and those they assisted.

As Slocum states

". . . the transformation to an organization of specialists is not likely to be made without loss of valued traditional roles."

However, it is not the changeover to specialists which is changing traditional roles. It is the factors causing change in agriculture, which factors are creating

the demand for specialists, which are responsible for the loss of these traditional roles. Recognizing the changes in agriculture, the A.D.A. and others in Alberta extension, must be prepared to take bold new approaches and not just adopt and modify the old traditional roles.

So, in future there will be no place for the traditional type of extension generalist except in agricultural 'frontier' areas where distance, poor communications, and less sophisticated farming techniques still exist. Some of our readers may be alarmed. Removal of the generalist could mean the crumbling of the last bastion of agriculture. Never fear. He will be replaced by a new member of the Regional Specialist team: an Adult Education Specialist. This man or woman will concentrate on teaching the farm operator how to do the things the generalist did. How to search for data at the Alberta Data Bank. How to register for agricultural education courses at the Alberta Extension Centre.

The farm operator does not need a day-to-day problem solver D.A. He can do that once the educator shows him how to use the 'data search' tools.

So the M.F.D. Regional Specialist team would comprise as a minimum:

- an Adult Education Specialist
- a Livestock Specialist
- a Farm Business Specialist
- a Crops Specialist

(ii) Farm Unit Motivation Must Be Re-Emphasized

Both the M.F.D. and R.D. Programs together with the increased reliance upon electronic communication will increase the emphasis on motivation. Those farm units which are highly motivated will be able to access

the Alberta Data Bank for information without taking up the time of the Specialists in the Regional Extension Clinics. Generally, those with less motivation will be the developing farm units which are 'emerging' and those which are 'adjusting out.'

Extension workers will not be making decisions for farm units or regional residents. They will be presenting information, interpretation, guidance and alternatives. It is up to the individual to make the decisions. But, there may be problems in making contact with individuals, getting them interested, and getting them to make decisions. It can be done if the A.D.A. staff is highly motivated to do so.

To-date, the desire or interest of extension field workers to motivate developing farm units has not been extensive. Motivation has centred on regular commercial farm units. They are easier and more satisfying units to motivate. They have managerial 'know-how' and adequate financing.

Thus, rather than asking what motivates recipients of extension efforts, ask what motivates extension workers. The success of any extension program depends upon whether those who carry it out are sufficiently motivated.

(iii) Field Staff Motivation Must Be Re-emphasized

It was not one of the purposes of this study to analyze in depth the motivations of the extension personnel. However certain motivational influences do seem apparent after talking to many extension field workers, formally and informally.

Present District extension field workers advance professionally in three basic ways. One, they transfer to other Divisions of the A.D.A. where they may become Regional Specialists or they may take up

non-extension positions. Qualifications for transfer take the form of increasing knowledge in one of the traditional production science subject matter areas. It is not surprising that District Agriculturists are motivated along such lines, as practically all university degrees in agriculture stress production science. One has only to look at a list of A.D.A. personnel in other Divisions, from junior positions on up, to ascertain the extent to which D.A.'s have followed the 'Divisional transfer' route.

The second career path has been by transfer to Headquarters but remaining in the Extension & Colleges Division. Career advancement then takes the path of advancing through administrative ranks. The prerequisites for advancement via this approach are 'subject matter specialization' for the District Home Economist and for District Agriculturists, administrative ability.

The third path of career advancement has been at the District level, i.e., getting top recognition in field extension alone. Senior D.A.'s can rise to the rank of Agrologist III and D.H.E.'s to Senior District Home Economists. In the Home Economics Branch the prerequisite is five or six years service and being an 'extension specialist.' The Personnel Department of the Government ranks the Agrologist III as an Extension Specialist for a Region who deals in "special extension functions."

It is not possible for all 'Indians' to become 'Chiefs.' But, the disquieting features of the three alternatives are:

1. the reliance upon subject matter specialization as a prerequisite to advancement;

2. the need to transfer out of extension field service to advance monetarily and in terms of recognition; and,
3. the tendency to encourage good extension workers to become administrators.

The regionalization which has created the position of Regional Agriculturist has added another position of 'in the field' recognition but the total system is fundamentally unchanged. Certainly the long standing emphasis, in the A.D.A. and in agriculture in general, on production science has helped to produce the existing system. But the system is not terribly conducive to rewarding those extension workers who wish to become life-long expert extension workers. This may explain the following A.D.A. District Agriculturists Branch staff turnover figures calculated in late 1968:

	<u>1966</u>	<u>1968</u>	<u>1969</u> (estimated)
Years on staff (average)	11	7	6.5
Staff with less than 5 years service	33%	59%	66%

The idea is to get the staff to "turn on" not "turn over!"

Our proposed system, composed of the M.F.D. and R.D. Programs, will improve A.D.A. field staff recognition and thereby, their motivation. We found that most extension field workers do not want to be strictly 'passive communications pipelines.' They want to be 'final links in the chain' of advice to the farm unit. The M.F.D. Program will provide scope for the many individuals who want to be 'subject matter specialists.' It is natural for individuals to want to upgrade their subject matter skills and to be the person to 'carry the word' to the farm unit. The M.F.D. Program recognizes this motivational factor and turns it to the advantage of extension work. M.F.D. workers will

'carry the word' in the initial phases of farm unit upgrading. Then gradually the farm unit will be phased onto a self-initiative basis. The M.F.D. worker will gain satisfaction from assisting in the growing of that "second profitable blade where only one grew before."

The R.D. Program will appeal to those with different motivations. Frankly, despite memorandum commitments to human resource and community development work, it is difficult to see how the A.D.A. recognizes those whose interests lie in this area under the present system. Required are individuals who have an affinity for agriculture but who have an understanding of the sociological and psychological implications of adjustment, change and 'shock.' While they are specialists in human relations, they do not necessarily need graduate degrees in sociology and other subject matter areas. Many counsel well with a fairly broad range of 'front line' experience and understanding of human relations.

The staff motivational aspects of the R.D. Program are also quite different from those of the M.F.D. Program in that progress or achievement will not be as visible as in the M.F.D. Program. Advancement in the R.D. Program group will be based upon effectiveness in motivating positive reaction to change and in cushioning the 'shock' of change. Evaluation will be much more difficult than in the M.F.D. Program. However, having a separate administrative and functional structure from the M.F.D. Program will mean that R.D. Program personnel will be judged in comparison to the performance of their peers. The R.D.P. worker will gain satisfaction from "helping people adjust to societal change."

QUICK REVIEW OF ESSENTIAL IDEAS IN CHAPTER 5RATIONALE

Historically most of the A.D.A.'s extension efforts centred on production technology. Of late emphasis has begun to swing to farm management and marketing. An encounter with farm adjustment extension has also taken place through A.R.D.A. work. These shifts in emphasis have broadened the A.D.A.'s objective. So much so, that many A.D.A. extension field staff members are in a quandry as to their role. Frustration has increased and with it the rate of staff turnover.

The foregoing shifts in emphasis are in response to an accelerating pace of rationalization in agriculture. This rationalization is producing in A.D.A. field staff an awareness of two things:

1. that there is segmentation into types of farm units and most D.A. and D.H.E. services only reach a portion of one of the nine types (Chart 4-1); the 'regular commercial' farm unit; and,
2. that "helping people to help themselves" is a truism in terms of commercial farm units and those which can 'emerge' into the commercial category, but for others, the motto for the future is "helping people adjust to societal change."

The first item of awareness reflects the sector of production agriculture which most extension field workers like to serve. The regular commercial farm unit has enough managerial know-how and finances to implement extension suggestions. However, the future extension job lies in the urgency of upgrading many thousands of emerging farm units. Here is a clear cut task. It requires all the skills of the existing extension field forces. It also requires a large input from an advanced

electronic communications network in Alberta plus improved liaison with researchers, lecturers, agri-business and farm organization people.

The second item of awareness forces a facing-up to the need for two different extension approaches with two different types of extension staff in terms of skills and motivation. Most of the A.D.A.'s present extension workers are production science trained and motivated by recognition of specialties in this area. They are not trained or motivated, nor can they gain recognition as specialists in human resource counselling to adjusting-out farm units. The broadened objectives of the A.D.A. cannot be achieved by superimposing a human resource development philosophy on an existing production science field force. Yet the point of entry to farm adjustment is through production science agriculture not 'welfare.' A question is posed as to which government department is best suited to handle farm adjustment counselling: the A.D.A., D.S.D., or H.R.D.A.? At the moment, at least eight government departments are counselling farm units (Chart 5-1). When one or two are chosen to counsel emerging and adjusting-out farm units, the rest should fall into a complementary resource input position (Chart 5-2).

Finally, a shift in information seeking initiative is required. The 'credibility gap' justification for government extension duplicating efforts of agri-business to 'keep the latter honest' is no longer applicable. Given agri-business counselling, access to researchers, access to a fast, efficient electronic information retrieval network, and high calibre commodity peer group lecture courses and seminars, then the top commercial, regular commercial and large-scale semi-commercial farm units can seek information on their own. They are 'information aggressive' and most have already by-passed the A.D.A.'s extension service. The emerging farm units have

to be trained by the A.D.A. in skills of data search and analysis so they become 'information aggressive.'

CONCLUSIONS

1. Separate farm unit extension in the Province into a Regional Technology Structure and a Regional Development Structure (Chart 5-2). The A.D.A. will have responsibility for the first. The choice of government department to be responsible for the second lies among the A.D.A., D.S.D. and H.R.D.A. The choice will be based on the input of two factors:
 - (a) 'grass roots' acceptance by farm units; and,
 - (b) attitude of the extension field force.Based on factor (b), our choice is D.S.D. to head up the Regional Development (Farm Adjustment) Structure using a core of agricultural and home economics field workers who express interest in human resource development work. Factor (a), 'grass roots' acceptance has to be determined.
2. Broaden the advisory structure to the A.D.A. (Chart 5-3). We propose a Regional Extension and Research Advisory Council comprising the members of the existing Alberta Agricultural Co-ordinating Committee (A.A.C.C.) and representatives from managerial farm units, commodity commissions and agri-business. This Council will meet frequently with the senior level of the A.D.A. -- Minister through Director of Extension. There will be Sub-Councils advising A.D.A. 'Extension Clinics' in each A.D.A. Region of the Province.
3. Consolidate the A.D.A.'s extension activities at Headquarters (Charts 5-4 and 5-5). Move the Agricultural Economics Division and the Program Development Division into a Managerial Farm Development (M.F.D.) Program Secretariat. The work of both is largely extension. It fits into the closely

co-ordinated work to be performed by individuals and teams within the Extension Division for the mammoth job of emerging farm unit upgrading.

Some extension is always part of regulatory work. However, the obvious extension carried on by the Animal Industry and Plant Industry Divisions needs consolidating into the Extension Division. Thus, Specialists and Supervisors from the first two Divisions will transfer to Headquarters and to Regional clinics.

4. Streamline the Extension Division's structure (Charts 5-6 and 5-7). The Regional Agriculturists will report directly to the Director. D.A.'s, D.H.E.'s, Agricultural Engineers, Specialists and Supervisors will all report to the Regional Agriculturist. All will upgrade to 'specialist' rank. All will form into Managerial Farm Development (M.F.D.) Program Groups -- teams of specialists.

Present Regional Offices will become Regional Extension Clinics. The District Office structure will be phased out, first on a pilot basis in Southern Region 1 (Lethbridge). Some District Offices will always remain for reasons of remoteness. The Regional Extension Clinics will have program development and commensurate budget autonomy.

The Extension Division will be the extension operating arm of the A.D.A.'s Executive Committee. The Committee will meet more frequently and become assignment-centred. The Director of Extension will be responsible for carrying out patterns of priority on 'top-down' government policy decisions agreed upon by the Committee. In turn the Committee must receive feedback on 'bottom-up' regional programming from the Director of Extension.

A 'paper-work handling' organization will run parallel to the main line Extension Division structure. The nucleus

already exists in secretaries and clerks who can relieve Headquarters and Regional people of this burden.

5. District Office phase-out will not begin until 1973 and then only in Region 1 (Chart 5-7). Lethbridge is ideally suited as the pilot program centre as the Southern Region has: good agri-business/farm unit rapport in contract crops; a strong agricultural course program at Lethbridge Community College; and frequent dialogue established among farm units and C.D.A. Research Station people. This is the right climate for putting managerial farm units on their own information-seeking initiative and leaving the field clear for the M.F.D. Group to work with emerging units. Between 1975 and 1980, the other A.D.A. Regions will set up Extension Clinics and drop most of their District Offices (Chart 5-8).
6. During the period to 1975, face-to-face contact at the District Office level will continue in Southern Region 1 as personnel are upgraded to 'specialists' and formed into the M.F.D. Group. We want face-to-face contact while the Extension Triumvirate is developing. In effect, face-to-face and electronic communications must 'run parallel' before the former is de-emphasized for managerial farm units and increasingly-emphasized for emerging units (during a 3-year training period for the latter).
7. The Extension Triumvirate (Chart 5-7) comprises the
 - (a) ALBERTA DATA BANK (A.D.B.)
 - (b) EXTENSION COMMUNICATIONS GROUP (E.C.G.)
 - (c) ALBERTA EXTENSION CENTRE (A.E.C.)

The first two will be the responsibility of the Extension Division of the A.D.A. but the third will be under the jurisdiction of the Alberta Colleges Commission though some of the agricultural course input would come from the A.D.A.

All three can be run on a paying basis. Users will comprise farm units, the A.D.A., universities, farm organizations and agri-business. The A.D.A. will use all three for its internal programs of data retrieval, information and course output. The A.D.B. deals in print matter; the E.C.G. deals in audio-visuals; the A.E.C. deals in lecture courses and seminars.

The A.D.B. and E.C.G. of the Triumvirate can be run by government or contracted out under 'Request for Proposals' (R.F.P.) to experts in each of the fields.

8. Finally, there is an important philosophy to be enunciated in future farm unit extension by government in Alberta. No one, not the D.A., the D.H.E., the development officer nor any senior department official nor any politician will decide which farm units upgrade and which adjust out. Any farm unit can register in either program: the M.F.D. Program for emerging units; or the R.D. Program for those adjusting out. Or the farm unit can choose to do neither. The individual will determine his own course.

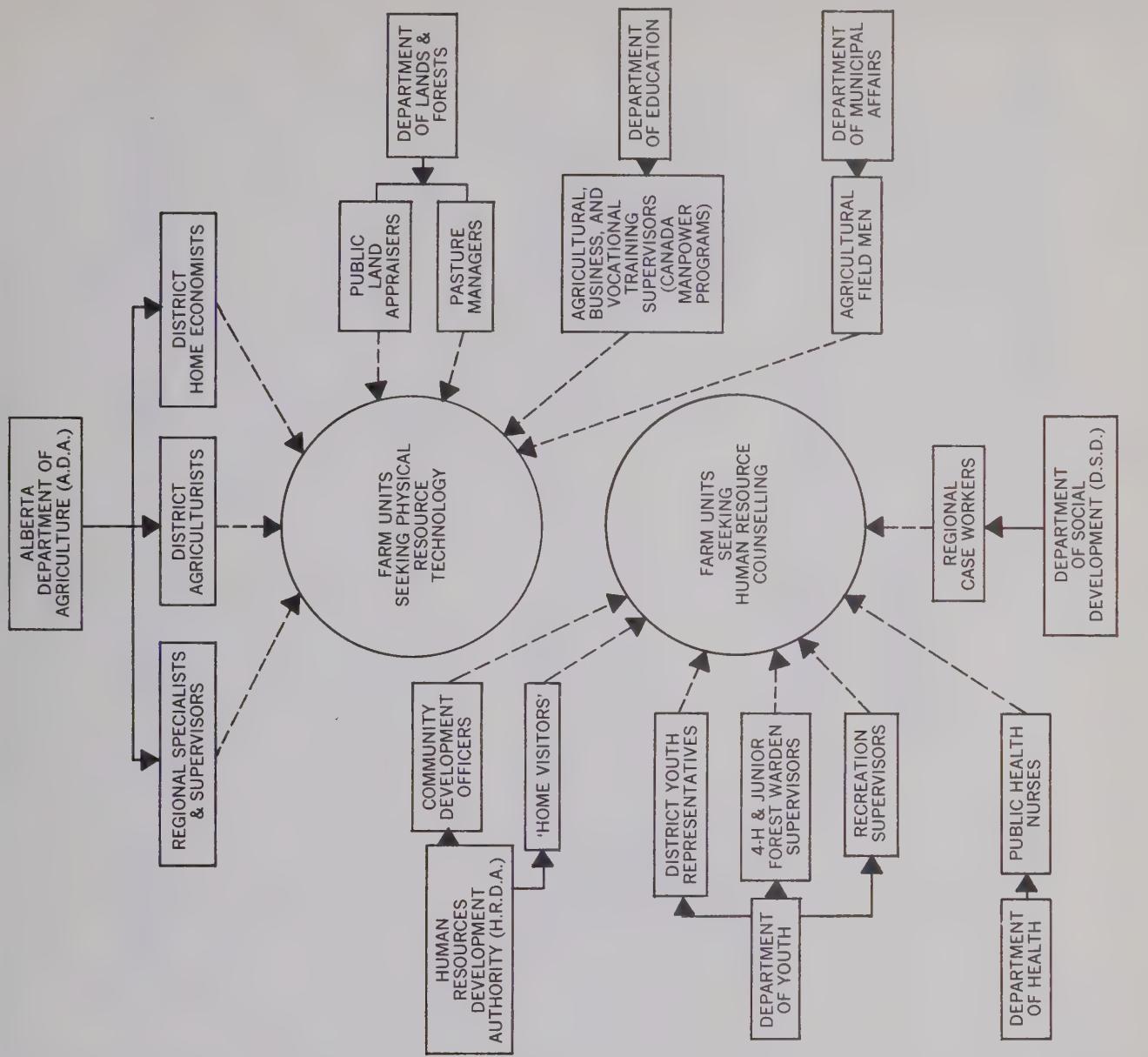


CHART 5-1

Alberta Government Departments Counselling Farm Units: 1970

KEY
— Lines of Authority & Responsibility
- - - Counselling Lines

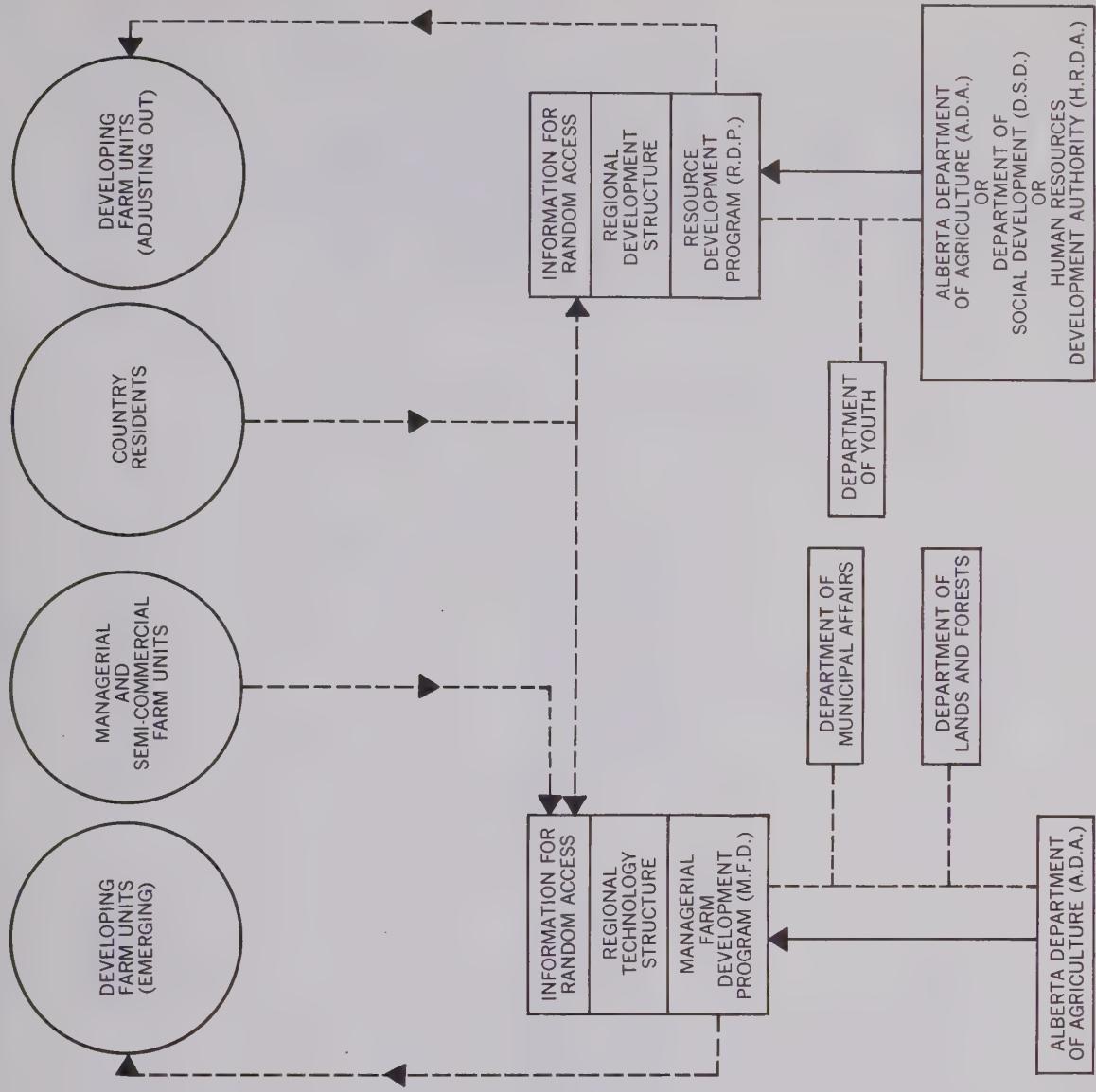
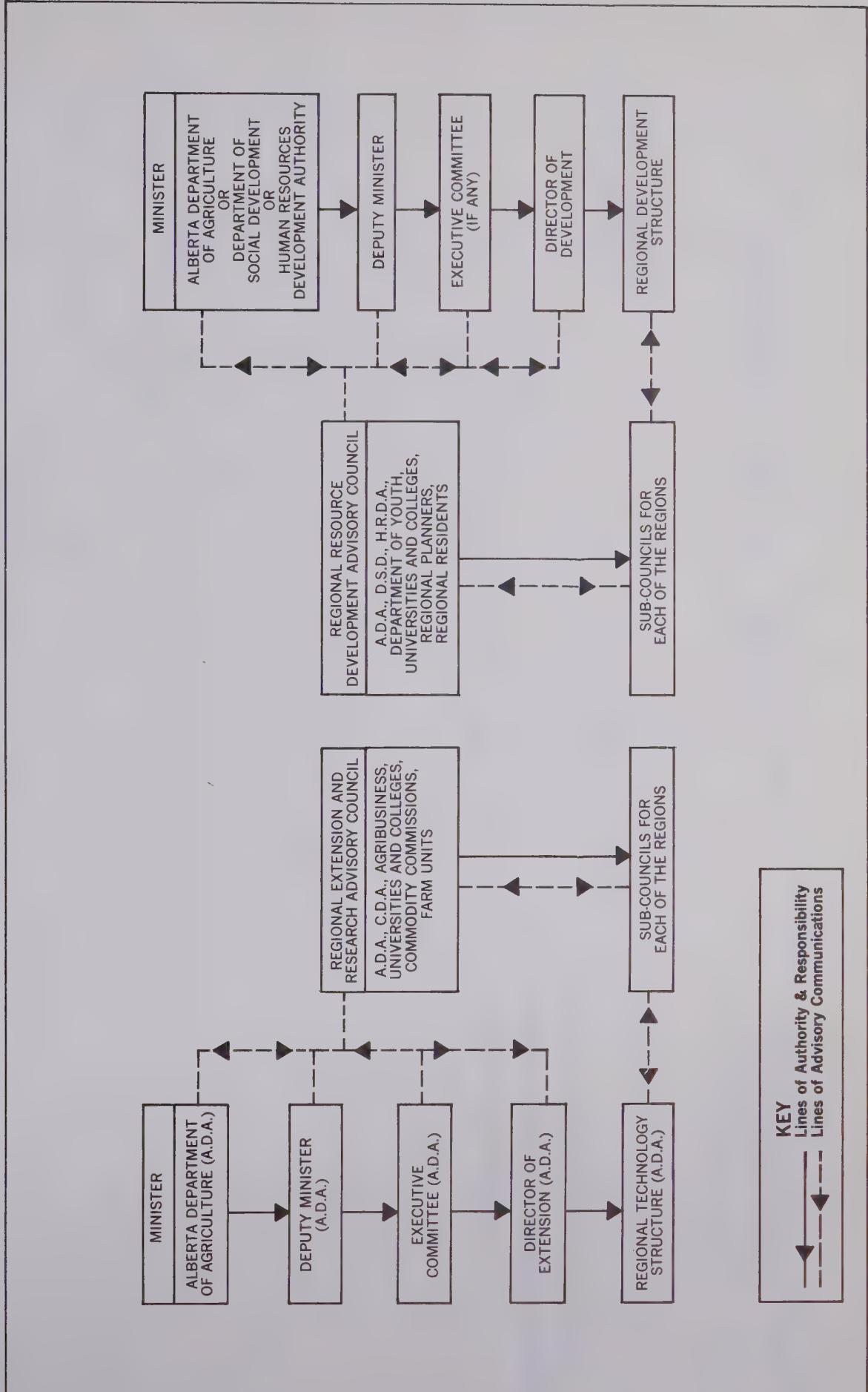


CHART 5-2
**Alberta Government
 Departments Counselling
 Farm Units 1975, 1980**

KEY
 — Lines of Authority and Responsibility
 → Lines of Counselling Initiative
 — Lines of Advisory Input

CHART 5-3

Future Advisory Structure of Alberta Extension 1975, 1980.



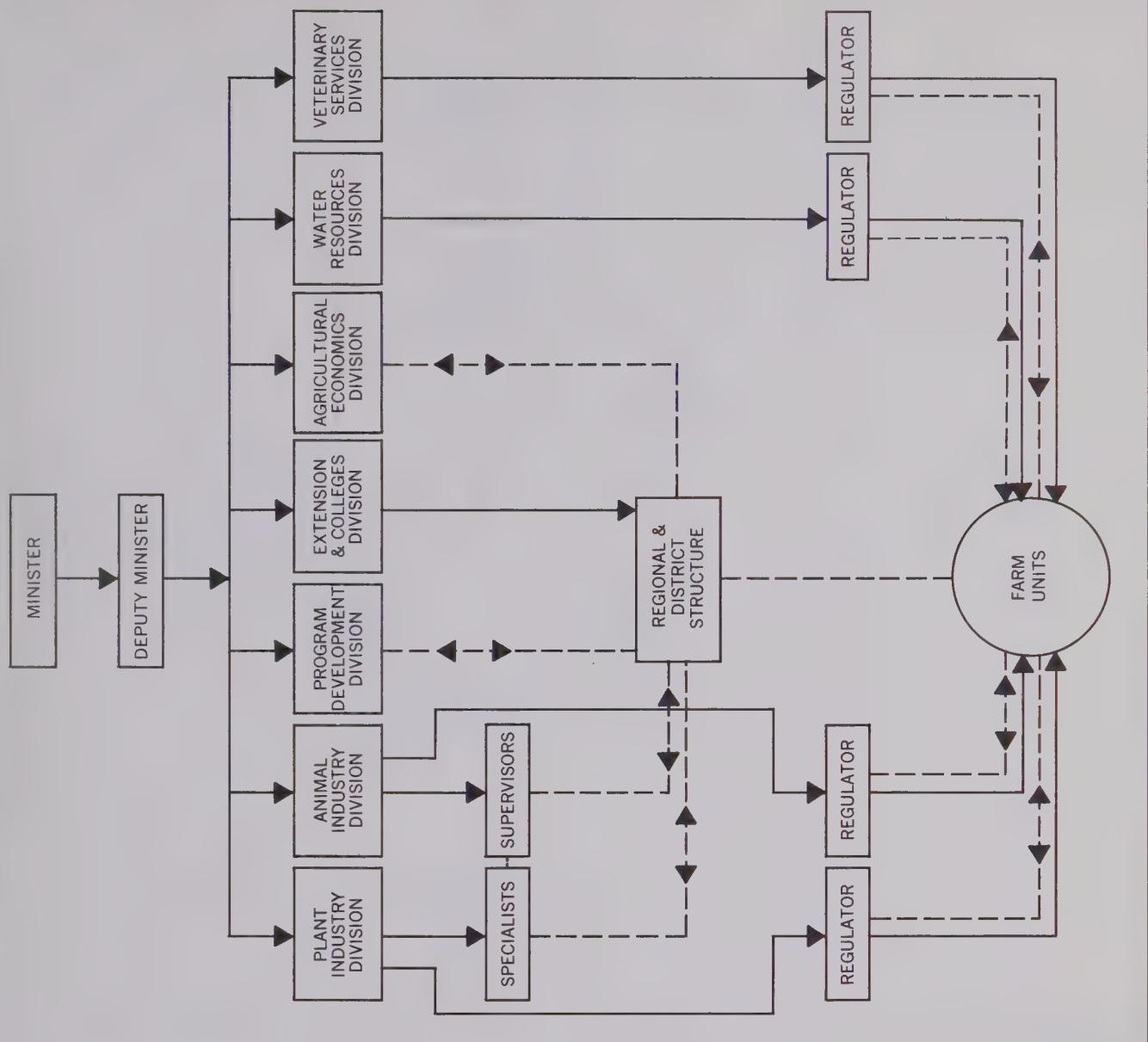


CHART 5-4
Present Alberta
Department of Agriculture
Internal Structure: 1970

KEY
 Lines of Authority & Responsibility
 Lines of Extension Information Flow

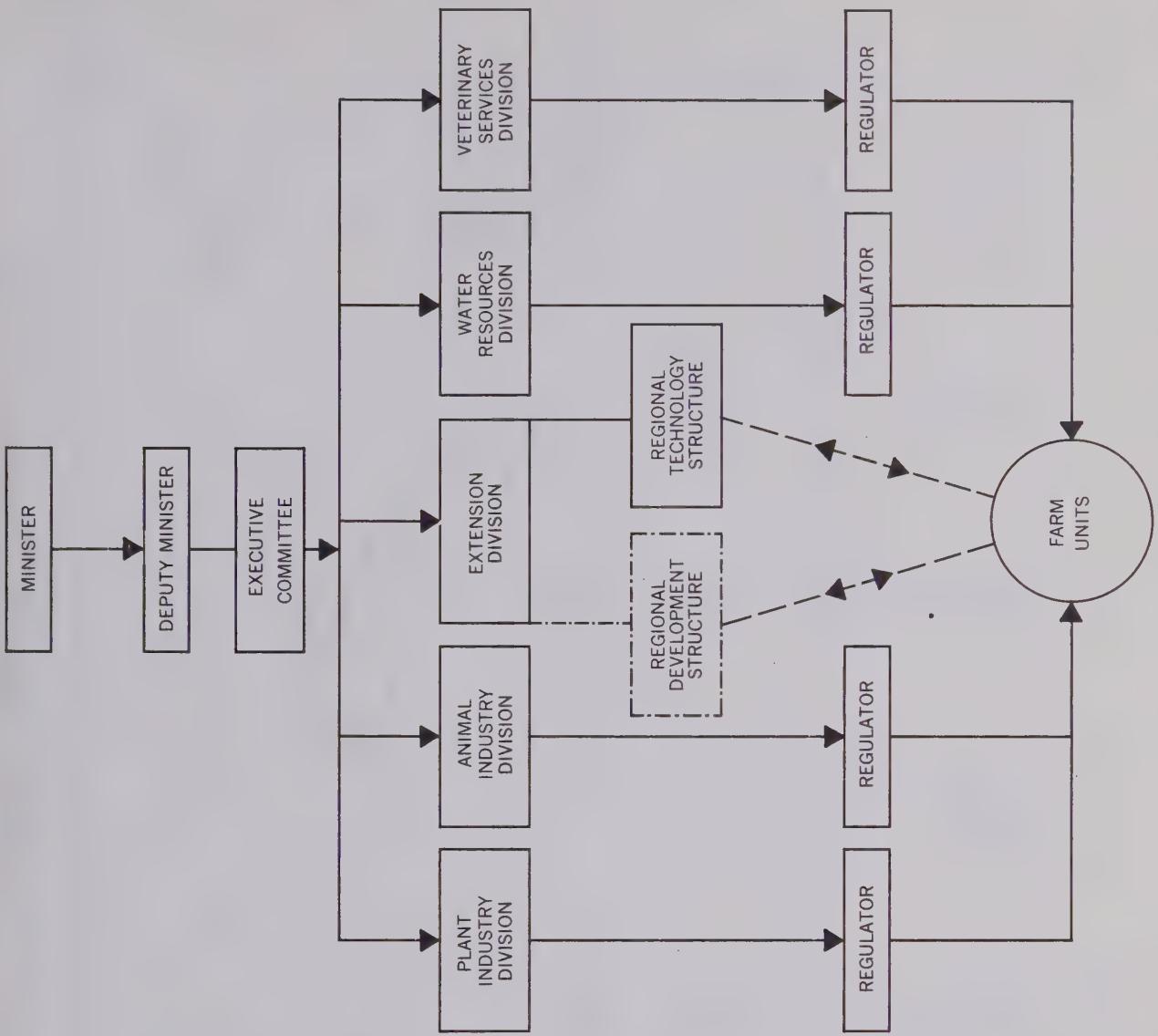


CHART 5-5
Future Alberta
Department of Agriculture
Internal Structure:
1975, 1980

KEY

— Lines of Authority & Responsibility
 - - - Provisional — Depends on
 Which Government Department
 Gets a Mandate
 — Lines of Extension Information Flow

CHART 5-6

Present Extension and Colleges Division Structure: 1970

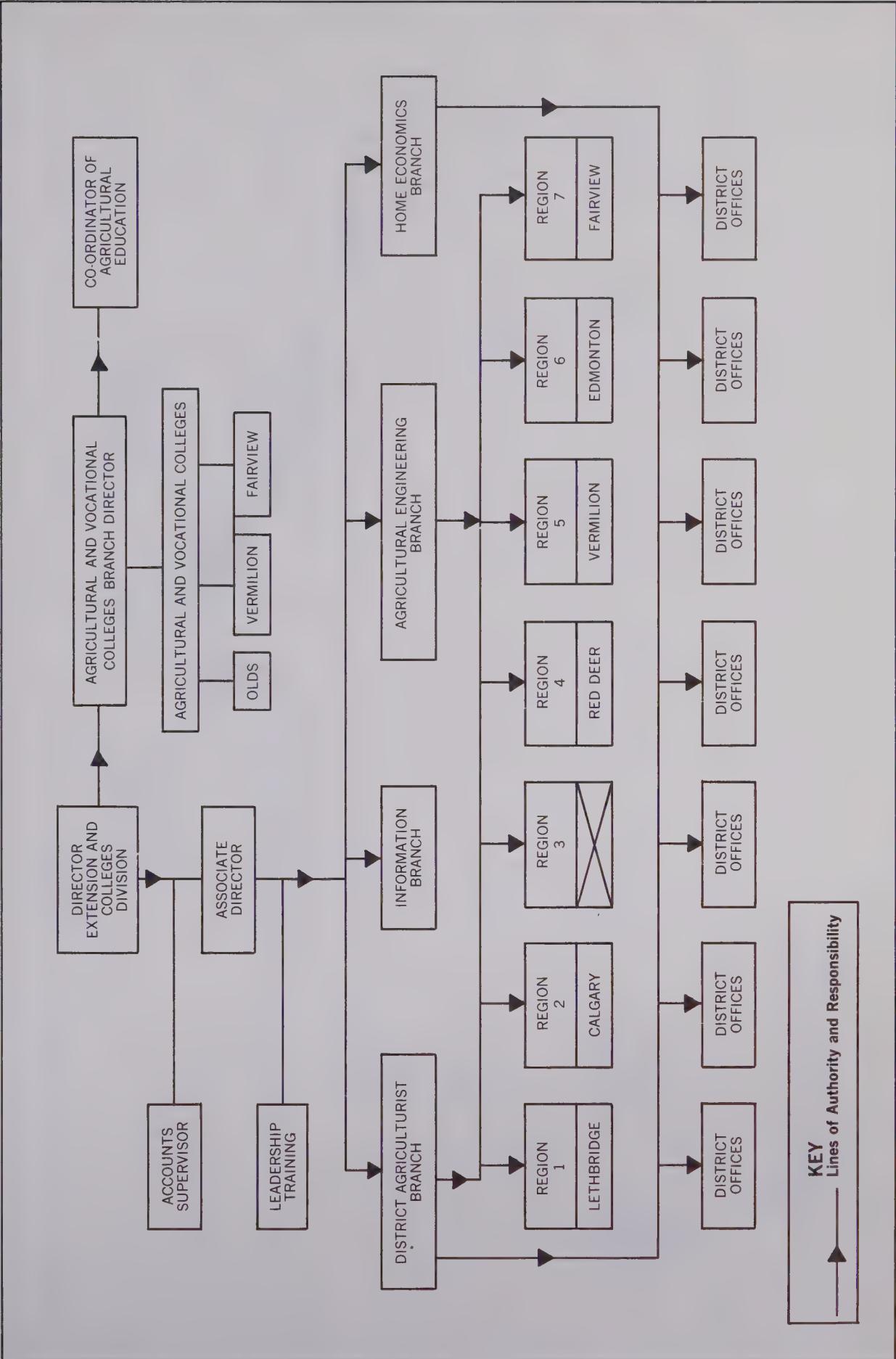


CHART 5-7

Future Extension Division Structure: 1975

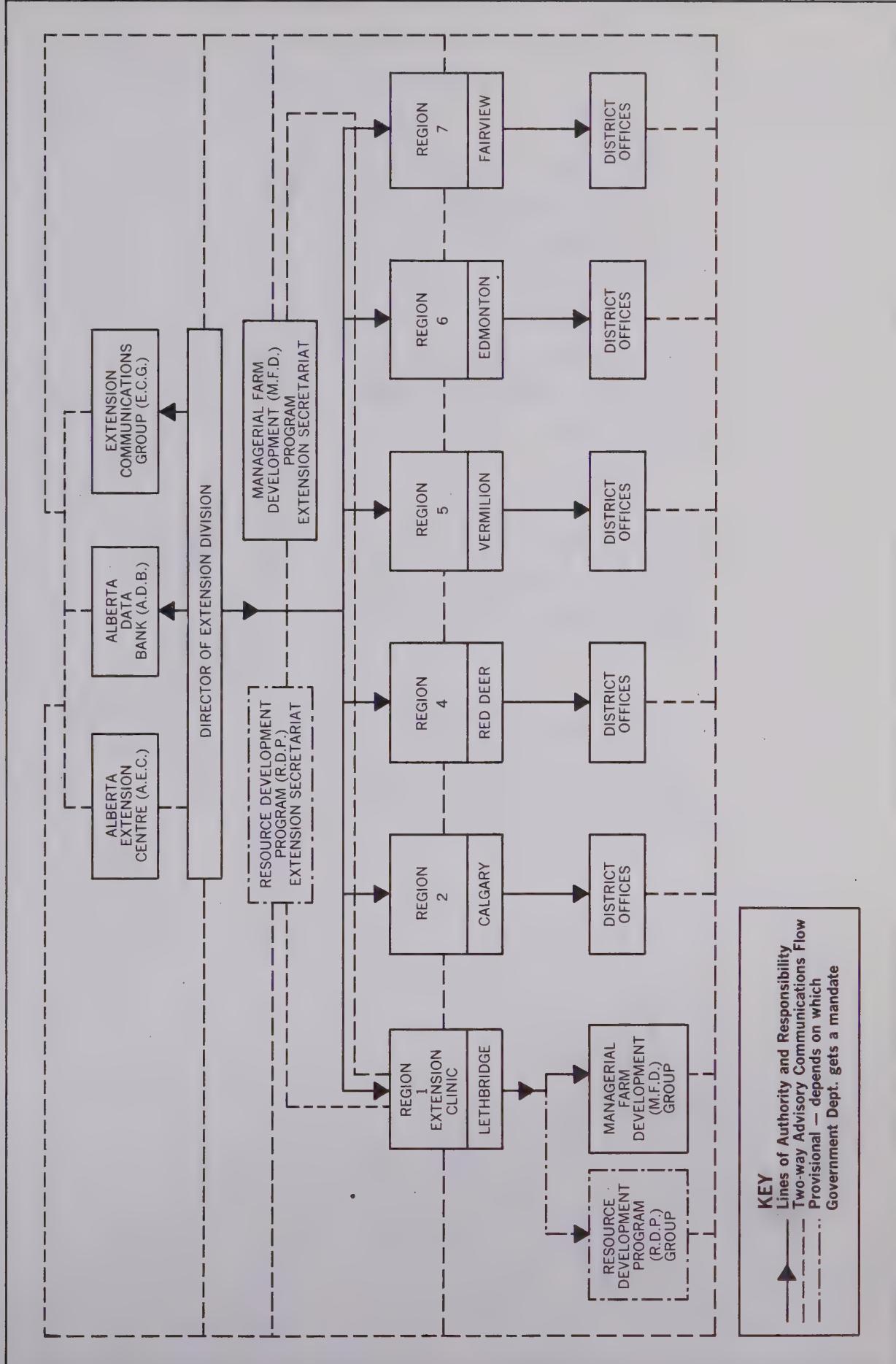
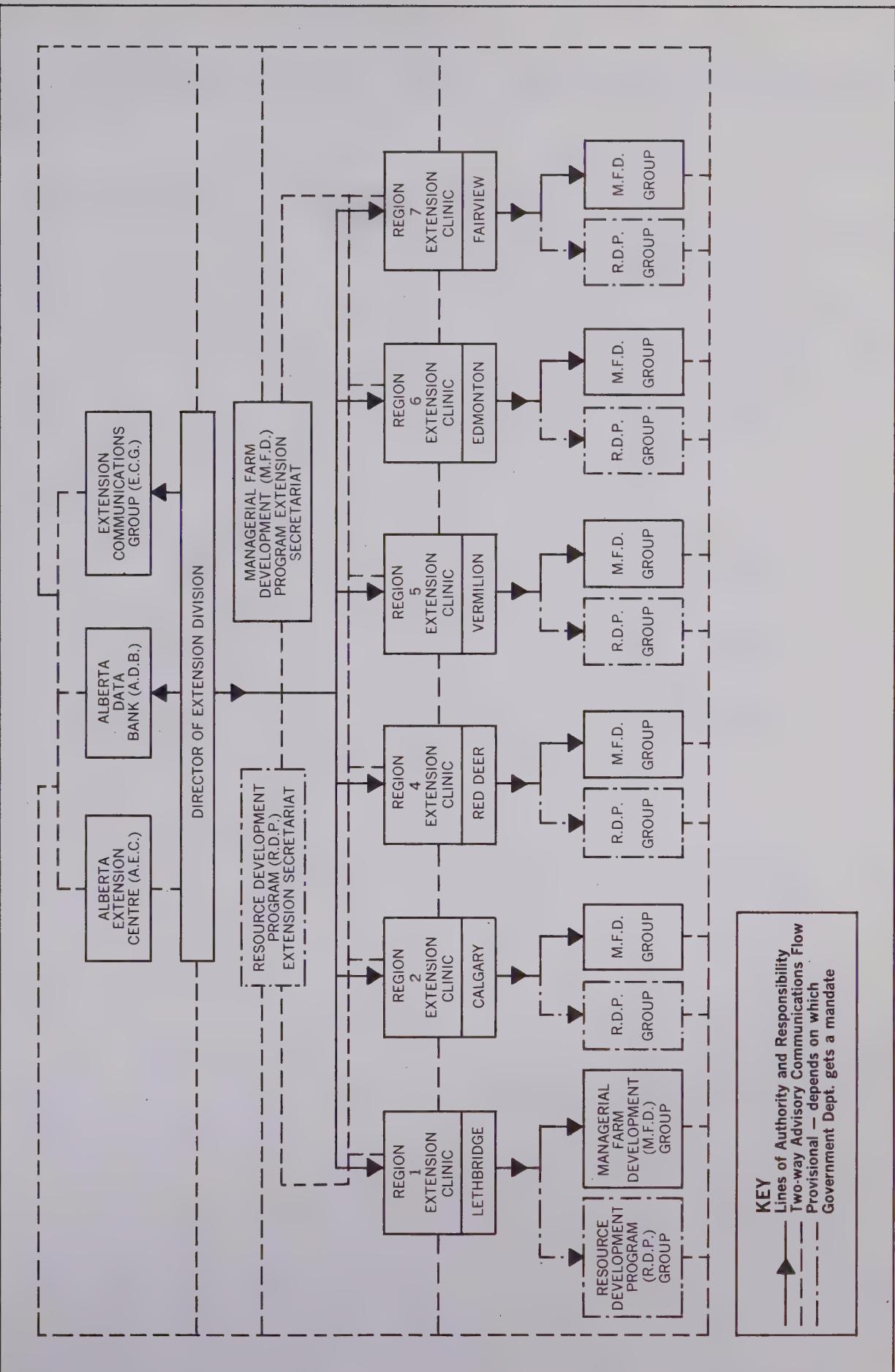


CHART 5-8

Future Extension Division Structure: 1980



FUTURE SUBJECT MATTER AND DISCIPLINE REQUIREMENTS FOR EXTENSION WORKERS

1. REQUIREMENTS FOR THE M.F.D. PROGRAM

The Regional M.F.D. specialist teams will be staffed with extension workers who are equipped to principally handle the problems faced by the 'emerging' farm unit, not the 'adjusting-out' farm unit or the top commercial farm unit or any other type of farm unit. Thus, the teams will deal with a segment of the agricultural industry and will not be frustrated by trying to be all things to all people.

(a) Diverse specialist teams

The Regional M.F.D. teams will encompass a mix much broader in terms of disciplines and subject matter specialization than that which presently exists in the various Divisions of the A.D.A. The range in formal education will be from Bachelor to Ph.D. The type of degree will range from Animal Nutrition to Business Administration to Extension Communications.

(b) Practicality

One point regarding extension programs which has been very forcibly made in our farm unit operator contacts is that programs must be practical in terms of 'dollars and cents' and in terms of the managerial ability of the farm unit to initiate the program. These A.D.A. programs must be practical and relevant at the 'emerging' farm unit level. This means that the M.F.D. extension teams must initially thoroughly examine the characteristics of the emerging farm unit.

(c) In-service training

What combinations of formal and informal education will best equip the Regional extension team members to carry out the M.F.D. program? There is a very strong trend noticeable in almost all sectors of the economy, including agriculture, towards continuing formal education

to the Master's level. It would be rash to state that this was unnecessary in the field of agricultural extension. 'Research' degrees might not be as valuable as 'teaching' degrees. There will still be a need for in-service training and practical experience so as to 'focus in' on peculiarities of extension to the 'emerging' farm unit. M.F.D. Program team members with Bachelor's degrees and extensive experience or in-service training will be just as effective extension workers as those with Master's degrees. The academic attitude with regard to continuous learning will have to prevail in both groups, however. All extension workers will have to be continually keeping up with new knowledge and skills which have applicability in the emerging farm unit sector.

One approach to keeping up-to-date which our study recommends is the institution of 'joint appointees' at universities and other centres of education. Another is an M.F.D. Secretariat in the Extension Division. A third is continual access to the Alberta Data Bank.

One interesting idea presented to our study team could apply to in-service training received by M.F.D. specialists. The idea is that an M.F.D. specialist-in-training would spend a few weeks with a top commercial operator learning from his practical operations. We add that he could then spend a few weeks with an 'emerging' farm unit. The benefits of such reverse information flow have been recognized since the 1917 A.D.A. Annual Report stated:

"The training and experience of the representative equip him with a fund of information on the general farm practises of the best farmers in the district."

(d) Subject Matter Requirements

The producing units in the emerging sector will require inputs in the physical resource area. Specialists in cattle, hogs, diary, sheep, the different crop areas, agricultural engineering will all be required depending upon the agricultural mix in various Regions.

Farm management inputs required by producing units will be in the areas of marketing, accounting, business analysis, and economics. The specialists in these areas will have to relate the principles involved to practical agricultural operations.

From the home economics area, the family unit will receive specialist assistance in the traditional areas of clothing, food and nutrition and home design. It will also receive extension attention in the general area of family living. A specialist in sociology, psychology, family problems will be part of the Regional team.

All members of the specialist team will be extension workers. Therefore, all members of the specialist team will be trained in extension and communication techniques. Unless emerging farm units are counselled in data search, analysis, and problem solving techniques, they will not be ready to 'fly on their own' at the end of the 3-year counselling period.

We must also consider the motivational role of the Regional specialists. They will not all be specialists in sociology and psychology, but they will all have to have some appreciation for the motivational, sociological and psychological problems which influence individuals in the 'emerging' farm unit sector.

2. REQUIREMENTS FOR THE R.D. PROGRAM

The Regional R.D. Program teams will be even more diverse in nature than the M.F.D. Program teams. In the R.D.

Program, practicality and in-service training will be heavily emphasized as in the M.F.D. Program.

The programs designed for the adjusting-out farm unit will require an agricultural input for point of entry and for farm units in the transitional stage. Therefore, some degree of agricultural training and knowledge will be required in the traditional agricultural subject matter areas. The traditional subject matter areas of clothing, home design and food and nutrition will have to be represented as well as some inputs in bookkeeping and budgeting.

Sociological and psychological factors will be much more important than in the M.F.D. Program. As in the M.F.D. Program, two degrees may become the general rule. However, they may very well be two degrees in different areas, e.g., agriculture plus sociology. R.D. specialists will have to have a better understanding of sensitization and motivational areas than M.F.D. Program specialists. There will have to be R.D. Program workers who are specialists in these areas.

Chapter 6

UNIVERSITY AND COLLEGE EXTENSION

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Chapter 6UNIVERSITY AND COLLEGE EXTENSION

"The schools of agriculture developed new crops and new methods of cultivation, but they did not develop a rural sociology or a rural economics for understanding social change in the rural community."

- Stanley L. Jones, University of Illinois,
Journal Co-op. Extension, Fall 1968

1. HISTORICAL PATTERN

Agricultural extension at the University of Alberta has been a joint effort of the Faculty of Agriculture and the Department of Extension. For many years, activities were co-ordinated by the Agricultural Extension and Publications Committee, chaired by the President of the University. The A.D.A. participated in the publications area for awhile but eventually conflicts arose between A.D.A. and University policies. The onus of U.ofA. extension activities has gradually been placed more and more on the Agricultural Secretary (now Supervisor) of the Department of Extension with the Faculty of Agriculture providing the necessary lecturing personnel.

(a) Trends in Agricultural Extension at the University of Alberta

Rather than a year-by-year rundown of extension activities at the U.ofA., we will discuss pertinent trends and events in extension from 1920 to 1970 in no special order.

(i) Over the years the major form of Faculty extension communication has been written publications. Short courses and field days rank second, radio a lagging third and individual producer field extension work has been virtually negligible.

(ii) The Agricultural Secretary (now Supervisor) position has evolved into one of 'internal publisher' of

Faculty publications and co-ordinator of extension programs put on by others.

(iii) In the early years, University extension revolved in its entirety around agriculture. Later the interest of the University in agricultural extension declined. The University President ceased to be the Chairman of the Agricultural Extension and Publications Committee, as the image of the University was no longer being disseminated largely through this Committee. The Agricultural sector of the Department of Extension became only a small component of the total University extension effort which had become mainly a metropolitan extension service.

(iv) The Faculty of Agriculture's emphasis on working with commodity organizations rather than individual producers anticipated, by many years, current thinking in the U.S. and latterly the new marketing thrust of the A.D.A.

(v) The historically repetitive issues of the amount of time a Faculty member should spend on extension work and "the need for emphasis on the dollar and cents meaning of research" are still current today.

(vi) The idea of a national publications committee to eliminate duplication, eliminate conflict of materials and publicize research was introduced in the 1940's. The reasoning is still valid and thus our study team introduces the concept of a Data Bank.

(vii) The A.D.A. evidently introduced their own Specialists (livestock) in 1941 because the Faculty of

Agriculture staff could not service A.D.A. extension meetings to the extent desired. With this, the door pretty well closed on the Co-operative Extension Service (C.E.S.) format of using university staff as extension subject matter specialists. A vital A.D.A./U.ofA. cross-over link was lost.

(viii) Over the years, policy swung back and forth on "whether to charge farmers and others for publications." When 10¢ per copy was instituted in the 1940-1960 era, the Agricultural Secretary's mailing list dropped from 500 to 70.

A few additional trends have been the recurring debates on charging for testing and other services, the need for direct farm unit-faculty contact, and the lack of C.D.A. Research Station/A.D.A./University dialogue and co-ordination of extension efforts. Three long-lived extension programs are: Feeders' Day, which was first put on by the Department of Animal Science in 1922; Farm Young People's Week, which is the oldest (1918) U.ofA. extension program; and the Rural Leadership Conference (1950).

The School of Household Economics has traditionally been the supplier of D.H.E.'s for the A.D.A. Extension Service and staff for the Agricultural and Vocational Colleges. Three programs of study are offered: the family, foods and nutrition, clothing and textiles. The family program introduces a new emphasis and an understanding of social, psychological, economic, aesthetic and physical dimensions of the family and its environment. New occupational opportunities open up for graduates such as family relations, child development, social work and family counselling. As regards government extension work, such subjects appear to be keyed equally toward the Department of Social Development or the Human Resources Development Authority or the Department of Agriculture.

(b) Extension at Other Universities and Colleges

Extension at educational institutions in Alberta other than the U.ofA. obviously does not have as long nor as varied a history. The University of Calgary (U.ofC.) has made facilities available for some A.D.A. extension courses, but an adult education program of equine courses is U.ofC.'s only major 'agricultural' extension effort.

Lethbridge Community College (L.C.C.) has a School of Agricultural Education which trains agricultural technologists. It also offers evening adult education agricultural courses in its School of Continuing Education leading to a Certificate in the "Achievement Program in Vocational Agriculture." Agricultural adult education programs have arisen largely due to the demand in the community. If a new course is to be launched, it is due to a very real demand for the course, with a committee of local farm unit operators plus an A.D.A. man such as a Livestock Specialist advising as to the design of the course. A lecturer is hired and all of the College's audio-visual aids are at his disposal. Almost all courses have been successful using this 'grass roots' process. Farm unit operators evidently like to come into an 'environment of education.' A hall in the country often 'leaves them cold' as a site for courses.

The contrast between L.C.C. and M.R.C. in Calgary with respect to agricultural adult education is striking. Courses such as Agricultural Economics, Animal Nutrition and Farm Mechanization have been planned and advertised at M.R.C. and very capable instructors have been available to conduct the courses in Calgary. Yet response has been sparse. For 1970-1971, a "Certificate in Agri-Business" program has been devised. The response has once again been poor in Calgary. Yet the M.R.C. agricultural program at Strathmore has drawn high registration.

(c) Extension of Agricultural and Vocational Colleges

"All the extension work in agricultural education will centre around these schools (Schools of Agriculture). The institute meetings, the short course schools, the seed fairs, and the weed inspection can be effectively operated from these schools as centres,"

- 1912 Annual Report of the Alberta Department of Agriculture

In 1913 when the Schools of Agriculture were formed, their function was to train rural boys as farmers and rural girls as homemakers. Farm courses have always been predominant, but the migration of Albertans to the cities forced the educators to add more sophisticated courses in agribusiness, clerical work and the trades. Gradually these institutions have evolved from farm schools to agricultural/technical/community colleges with a mixed image.

(d) Extension in the United States

A historical review of extension in the U.S. would be a study in itself since the Co-operative Extension Service (C.E.S.) has been in existence since 1914. The C.E.S. has been and is a completely different extension system than Alberta's. For instance, it has a 3-way input: counties, state 'land grant' colleges and the U.S.D.A. In some states, 'County Agents' are joint appointees of the land grant college and the county.

The significance of C.E.S. history to Alberta is that the C.E.S. has already faced many of the problems and alternatives now facing Alberta. For instance, the C.E.S. has been struggling with the conflict between the educational purposes of extension and the role of extension as a component of government development programs such as farm adjustment or regional industrial development. Alberta is just heading into this era.

State directors of C.E.S. programs have instituted a wide variation in state programs. Of importance to this study are those differences which have occurred because of the preponderance of urban life in one state, and the agricultural nature of another. Thus, Massachusetts has widened its C.E.S. program to include more metropolitan extension. Nebraska extension has maintained its basic agriculture and home economics program base and has concentrated upon improving its methods and the skills of its staff in these traditional programs.

Common to all C.E.S. programs has been an emphasis on the development of excellent support facilities at the land grant universities or colleges. These include meeting rooms, classrooms, audio visual aids, and libraries. Groups of creative, regionally-oriented journalists and public relations experts are also available.

Examples of recent C.E.S. innovations from a few states include: the first 'joint appointee' in Business Management in 1969 in Iowa; use of CANFARM-type record keeping in Arizona as the first step to showing the very low income farm unit operator his insurmountable problem; the use of an airplane-equipped, mobile radio-equipped, small, highly-trained fast-moving group of specialists -- quality of personnel and up-to-date facilities rather than quantity and slow-moving media in Nebraska; and, "telelectures" (two-way specialist/farm operator group discussions via telephone) in Minnesota.

(e) Extension in Other Provinces

Some provinces differ from Alberta in that the extension program is partly carried on from the universities. The University of Saskatchewan had the responsibility of conducting extension work with the 4-H Clubs for many years. This was done through the School of Agriculture, operated from

the University campus, and separate from the Faculty of Agriculture. This School has been broadened in recent years to become the Division of Extension. Within the new Division there is a Chairman of Agricultural Sciences who programs University youth and adult education courses in the field of agriculture. Working closely with the Chairman since 1964 are 'joint appointed' professors in the Faculty of Agriculture, the College of Home Economics and the College of Veterinary Medicine. Joint appointed professors at the University of Saskatchewan are expected to spend 50 per cent of their time teaching and conducting research at the University, and the other 50 per cent on extension in the field.

A similar program is in effect at the University of Manitoba. But the Manitoba 'joint appointee' is funded by the Manitoba Department of Agriculture rather than the University.

Ontario Agricultural College at Guelph had a long history as a part of the Ontario Department of Agriculture until it became a College within the University of Guelph in 1965. Since that time it has been exposed to a viewpoint broader than that of just agriculture. One senior professor in each department of O.A.C. is charged with carrying out an extension effort on behalf of his department. Primarily this is to see that research is of significance to the region and that results of research carried out at O.A.C. are getting to the agricultural areas.

No joint appointments have been made at O.A.C. However, College staff is expected to have a pro-extension attitude. A researcher-farm unit operator information exchange is expected. Funding from the Ontario Department of Agriculture and Food (O.D.A.F.) and farm group pressure have made possible, and probably have made necessary, the extension effort which takes place today.

(f) Overseas

Extension approaches and problems throughout the world differ little from those in Alberta. The Working Conference of Directors of Agricultural Advisory Services, O.E.C.D., Paris, France, September, 1968 outlined the following:

- importance of advisory services in the sociological sphere,
- need to display greater resources and intensify effort in aiding low income farmers,
- increasing need for advisory services to accept responsibility for persuading farmers to relinquish non-viable holdings,
- natural preference of many advisers to work in areas of commercially-developed farms rather than in areas of low income,
- large-scale specialized production units require more highly specialized advice,
- there is a tendency for research workers in the applied field to direct their work into more basic problems than is often necessary because of higher status attached to papers subsequently published.

2. OBJECTIVES OF UNIVERSITY AND COLLEGE EXTENSION

Our study considers the extension objectives of universities and colleges to be motivated by funding, relevancy and service considerations. The funding objective arises because educational institutions inform the public as to their research and other activities (extension) in order to ensure continued funding. There is a relevancy objective because there must be a strong link between the academic and non-academic worlds to ensure that work in one is relevant to the other. There is a servicing objective in that university and college faculty members perform services of benefit to the community such as public speaking engagements, adult education courses, and advisory service to commodity groups or associations.

(a) Extension Objectives of the University of Alberta

(i) The Faculty of Agriculture

The April, 1962 Agricultural Bulletin set down the extension objectives of the U.ofA. Faculty of Agriculture as being concerned with:

"helping to keep the graduates, farm leaders and prominent farmers informed of new scientific information The main role of university professors in agricultural extension has been described as 'teaching the teachers' - where the teachers are those regularly providing new agricultural information to the general farming public."

In connection with negotiations leading to the establishment of the Alberta Agricultural Co-ordinating Committee (A.A.C.C.) in 1965, the following extension and research jurisdictions of the C.D.A., the A.D.A. and the U.ofA. were agreed upon by all three.

The Faculty of Agriculture's extension role was stated as:

". . . the making of research findings and technical information available for farmers, agrologists and specialists."

In the Faculty submission to the negotiation of the A.A.C.C., University staff doing agricultural extension

"should normally be concerned with communication to groups and with those consulting problems that have been brought to them by specialists. . . . routine service functions should not be the responsibility of the University"

It was recognized that:

". . . extension activities are a function of the Faculty, but that this function should complement, and not compete with, the functions of teaching and research."

The ability of the Faculty, and the entire University, to meet such an objective has been questioned by Dr. Travis Manning of the Faculty.

"The University is neither well organized for, nor philosophically oriented toward a major role in adult education. Staff members are not given as much credit for adult education activities as for resident teaching and research."

As he says, the effect of this is

". . . to divorce the university staff from their constituents - the farming public."

The Faculty of Agriculture's present extension objectives are 'passive.' That is, the Faculty is aware of its position, can and does assist in problem areas but, for the most part, leaves the extension program up to the University Department of Extension and the A.D.A. Future extension objectives of the Faculty may broaden in as much as the future scope of the

Faculty's activities may broaden. The Dean of the Faculty has indicated that the Faculty has a "broadening area of responsibility to society" in the entire field of 'renewable resources.' It is not clear whether the more extensive subject matter area is to be accompanied by a more intensive and extensive approach to extension by the Faculty. Within the Faculty's present structure, the likely extension objectives of the various Departments in the future are forecast by our study team as follows.

The Department of Agricultural Economics and Rural Sociology will continue to carry on research and extension in rural sociology which may evolve into regional sociology (as 'rural' and 'urban' increasingly interlock and both terms become meaningless). The Department will also provide part of the subject matter input and suggest innovative approaches to organizations and individuals working in the field in farm adjustment, community development and regional planning. These activities should modify the dominance of agricultural science or its successor, renewable resource science, in both research and extension done at the University.

The Department of Agricultural Engineering will take one of the leading roles in integrating 'field extension' with research by being one of the first Departments to institute the modified 'joint appointee' in co-operation with the A.D.A.

Animal Science will further research/livestock industry dialogue through innovative courses and programs tailored to commodity peer groups such as the Cattlemen's Short Course. The Department of Entomology will likely carry out more extension work in the areas of pesticide pollution and environmental insect control. Food Science will likely engage in further development

of practical extension programs because of this Department's close contact with agri-business. It will also attempt to widen the focus of agriculture to include food processing and conceivably consumer trends. The Soil Science and Crop Science Departments do not indicate any changes in future emphasis. Some extension efforts will likely involve being the 'honest broker' who evaluates the 'credibility gap' which agri-business is reputed to cause in the minds of farm unit operators.

The foregoing indicates that the Faculty may well do a lot of field extension/research work in new subject matter areas such as renewable resources, environmental control, pollution and community development. University extension in the traditional production science subject matter areas is burdened with a history of conflicting jurisdiction with the A.D.A. Our study team proposes to facilitate greater U.ofA./A.D.A. interaction by introducing new communications forms as relatively autonomous units. Such units comprise the "Extension Triumvirate": the Extension Communications Group (E.C.G.), the Alberta Extension Centre (A.E.C.) and the Alberta Data Bank (A.D.B.). Both the A.D.A. and U.ofA. can access these facilities and establish new relationships between themselves in so doing. Almost all A.D.A. and U.ofA. people interviewed by our study team agreed that the A.A.C.C. was a passive vehicle and not one to be the 'action line' for revitalized interaction.

(ii) The Department of Extension

The agricultural extension objectives of the Department of Extension have tended to depend upon the aims of the Agricultural Secretary (now Supervisor).

Current emphasis appears to be centred in the 'community resource development' area and courses for commodity peer groups. Future emphasis is uncertain.

(iii) Relevant Extension Objectives of Other Faculties

For research or extension training and upgrading, the shift in emphasis of the School of Household Economics to a 'family program' as the integrating focus of the School is commendable. It indicates a recognition of broader social and economic forces affecting a unit of society than merely those requiring examination in light of economics or domestic science.

From an extension standpoint, an open-minded awareness and study of forces affecting farm family units can be a valuable skill for an extension field worker wrestling with a situation such as farm adjustment in an endeavour to cushion the 'shock of change.'

Sociological extension is coming into prominence. If objectives are being set regarding subject matter, the backdrop should be in terms of regional development. This would place in larger context such program centres as the farm unit, the family unit, the town and the community.

(b) Extension Objectives of Other Alberta Universities and Colleges

Lethbridge Community College (L.C.C.) presently has the only well developed agricultural extension effort outside the U.ofA. and the Agricultural and Vocational Colleges. Funding and services have not been major objectives of L.C.C. However, L.C.C.'s programs have been carried out with a

relevancy objective in mind. Farm unit operators and community groups have been encouraged to present ideas for courses and participate in course evolution. The L.C.C. philosophy is that the farm unit operator needs a sense of achievement and the ability to "get up and do things" on his farm, in his community, and in his region.

(c) Extension Objectives of Alberta Agricultural and Vocational Colleges

Historical review of the objectives of the Colleges shows an increasing commitment to general and vocational education in addition to the traditional emphasis on agriculture. However, no explicit agricultural extension objectives have been officially stated. The 1970 submission of the Board of Agricultural Education (of the Colleges) to the Worth Commission saw a different role for the Colleges which:

". . . should become community colleges, in a broad sense, with special responsibilities for agricultural education."

However there is a community college system building wholly apart from the Colleges.

Recent Annual Reports of the A.D.A. show that a large number of extension activities do take place at the Colleges, despite a lack of official extension objectives. During the summer months many agriculture-oriented organizations and groups use the facilities for courses and meetings. With a large commitment in such areas, our study team has reconstructed four extension objectives which the Colleges have, in fact, followed. These have never been stated as such.

- (1) Use of College facilities is to be maximized by encouraging conferences and seminars for the use of outside organizations, most of which will be agricultural in nature.
- (2) Publicity in the vicinity of the College will stress the value of the College to the region.
- (3) College facilities will be available to Regional Extension Offices for use in connection with extension programs.
- (4) College staff members will be encouraged to participate in field extension programs in the region during the 'off season' of formal course programs.

We suggest these four in place of the multiplicity of objectives currently stated for the Colleges. The Colleges have, in fact, had objectives which range from agricultural and regional extension support, to formal technological training, to formal pre-technology and high school upgrading programs. We suggest that this range of objectives is too broad. We recommend that the Colleges should concentrate on agricultural extension and the training of agricultural technicians and agricultural certificate graduates.

The proposed four extension objectives can be divided into agricultural extension and regional extension objectives. Agricultural extension will have the objective of encouraging a different emphasis in use of College facilities by conversion to 'extension centres.' These 'centres' will interact with A.D.A. Regional Offices plus the U.ofA. and other universities and colleges on the basis that most courses will be put on at 'extension centres.' Regional extension will have the objectives of making the 'extension centre' the focal point for dissemination of information and conditioning regarding regional planning. Courses in rural sociology,

regional planning, and the like will be put on at the 'extension centres.'

(d) Extension Objectives in the United States

The National Advisory Commission on Food and Fibre in 1967 clearly stated the two alternatives facing the Co-operative Extension Service (C.E.S.).

"One is to stick with commercial agriculture exclusively and become a highly specialized but increasingly smaller part of the entire extension scene of universities and the other public and private institutions. A second strategy would be to attempt to expand the Cooperative Extension role to include all rural, and perhaps major urban, problems."

These alternatives are recognized in Alberta by many agricultural extension policy-makers and field workers.

The latest C.E.S. 'self-portrait' is found in the U.S.D.A. and National Association of State Universities and Land-Grant Colleges (N.A.S.U.L.G.C.) report "A People and a Spirit." In the area of agricultural extension three of the Report's recommendations have relevance to Alberta.

- (1) The multi-county approach should be expanded to its maximum utility. This may take the form of informal cross-county co-operation, area extension centres, multiple county budget and administrative units, and even interstate staffing of programs. With more knowledge calling for greater specialization, area programming may be a more practical approach than county programming.
- (2) Increase use of specialists holding joint appointments.
- (3) There will be an increase in charging by C.E.S. for assistance provided to large, highly specialized farmers.

In the area of social and economic development the "People and a Spirit" Report recommended:

- (1) That five types of personnel be used for community development work:
 - (a) a generalist resident in the community,
 - (b) state extension specialists,
 - (c) part-time consultative help from specific disciplines,
 - (d) sub-professionals,
 - (e) lay workers.
- (2) An increase in resources for work with low income farmers, these efforts to be concentrated on non-agricultural factors affecting the welfare, vocational opportunity, and personal development of the target group. Personnel must take the initiative in contacting poor people. Individual counselling will be a major thrust.

The following general recommendations of "A People and a Spirit" also warrant considerations in the context of future extension in Alberta:

- (1) Experimenting with new organizational structures such as multi-county staffing and specialist teams.
- (2) Employing personnel trained in disciplines relevant to the assigned educational role.
- (3) Increasing the use of consulting teams on a contract basis for special problems.
- (4) Increasing the use of non-Extension personnel hired for specific work on a part-time, one-time, or periodic basis for help in disciplines not available on the regular staff.
- (5) Making the best use of available staff by utilizing new electronic teaching devices, new communications systems, and new teaching techniques.

(6) Access to a national data bank as an essential adjunct to the knowledge Extension needs "to carry out its mission."

(e) Extension Objectives in Other Provinces

As in Alberta, those universities and colleges that need money for applied research must perform certain extension functions to obtain the necessary funds. Ontario Agricultural College at the University of Guelph has a major commitment in this regard as there are direct funds available to them from O.D.A.F. Ontario Agricultural College, to remain relevant, was required to boost its extension effort. It appointed an Extension Co-ordinator in July 1969.

The University of Saskatchewan, with six joint appointments to animal science, veterinary medicine, horticulture, agricultural economics, home economics, and soils is striving to stay relevant by maintaining close contact with rural areas. Fifty per cent of each joint appointee's time is spent in the field.

Also in Saskatchewan, a series of "regional courses" is programmed by the Extension Department, University of Saskatchewan, each year. The University, the S.D.A., the C.D.A. and the local Agricultural Service Boards are all involved. Representatives of each of these groups meet in the fall to plan programs most appropriate for the region. Instruction is carried out for a minimum of three days. There is a two-way flow of information from regions to the university and vice versa.

Other programs which are examples of universities and colleges remaining relevant and providing service are: the Manitoba Agronomists' Conference at the University of Manitoba each December; retraining and upgrading courses for farmers at Macdonald College in Quebec, in which the Province and Canada Manpower participate; the use of existing farms as "living case studies" for students at Centralia (Ontario) Agricultural College; and Farm and Home Week at the University of Saskatchewan.

3. 'WANTS' SATISFIED BY UNIVERSITY AND COLLEGE EXTENSION

The 'quantity of living' of a farm unit involves the standard of affluence of both the production unit and the family unit. The young farm unit operator wants the best production tools. His family wants an equally comfortable standard of living as city families. The satisfaction of these wants lies in utilizing information sources and other resources correctly to optimize dollar inflow and outflow.

The 'quality of living' of a farm unit involves the non-monetary breadth and depth of human development of the operator, his family, his community and his region. Success in the 'quantity' area often allows time for the 'quality' area.

Universities and colleges can play a role in satisfying both quantity and quality wants. They can satisfy the first by means of research input to agricultural extension; the second by general adult education.

(a) Accessibility of Information Wants

Many of the top commercial and regular commercial managerial farm unit operators desire maximum ease of access to any and all sources of information. Such sources could be researchers, teachers, courses, seminars, publications, radio or TV broadcasts, data banks, libraries, located anywhere in the world. Only a few such farm businessmen have had any training in how to effectively search such sources for information, then catalogue it, and analyze it. Given such training and given easy access to universities and colleges, the farm businessman can solve his own problems.

Such ease of access is relatively hard to come by. Extension services have been reluctant to train the farmer businessman to 'seek and find' on his own initiative. Researchers have shown tendencies to want to avoid farm unit operator contact. Reasons advanced for having a minimum amount of researcher/farm unit operator contact are that: it disrupts

the research process; it is not necessary to the research; it is often beyond the comprehension of the farm unit operator; and, some research requires isolation or extensive testing without any outside influence.

In the next 10 years the level of sophistication of managerial farm units will continue to rise. If the purpose of research, teaching and extension is to help farm units, including farm families, then why should there not be access to any and all channels of information at any stage of development on individual initiative? Individuals would then have to accept responsibility for their own interpretations of research and teaching.

Such an approach would 'involve' universities and colleges in Alberta; not in a battle of extension, education and research jurisdictions, but in an 'openness' of information flow. To facilitate this, our study team suggests new communications structures: the Extension Communications Group (audio-visual), the Alberta Extension Centre (lecture courses) and the Alberta Data Bank (print information).

Semi-commercial farm units and country residents (see Chart 4-1) should have similar ease of access but always on their own initiative. All studies, surveys and our study team's field experience point to the fact that, excluding large scale hobby and part-time farmers, the rest are 'information passive' not 'information aggressive.' So researchers need not fear that they will be 'swamped' by thousands of information requests.

For developing farm units, particularly the 'emerging' sector, techniques of data search should be one of the key inputs to our suggested M.F.D. program. With initial coaching, such emerging farm units will adopt the 'information aggressive' posture of the managerial farm units.

For the family unit, the community and the region, all facing problems of coping with change and planning for the future, there should be access to the sociology, geography, psychology and ecology staff at universities and colleges. Fortunately, these departments are already quite open to dialogue with the community. Possibly the only concern is that many of the teachers and researchers tend to be metropolitan-centred. Regional feeling and expertise will have to receive greater emphasis.

(b) Practicality of Information Wants

Accessibility to information sources is not the only 'quantity of living' want. Farm unit operators have told us clearly of their concern that information be practical. They want opportunities to question the views of university researchers, to dialogue on how to apply research, and to discuss the "\$ and ¢" aspects of research findings. Increased dialogue with researchers should assist in furthering the practicality of research.

(c) 'Community Involvement' Information Wants

As urban/rural interlock expands, groups of farm unit operators and country residents begin to evidence wants for education in regional, physical and human resource planning. In farm unit operator meetings held by our study team, there is evidence of a positive rather than a nostalgic interest in trading centre rationalization, centralization of educational facilities, enhancement of recreational and cultural amenities.

(d) Meeting the 'Quantity of Living' Wants

(i) Harnessing Business and Technology

"Tell me quickly 'off the top of your head' some examples of agricultural education or extension programs or systems which are prototypes of the future and which exist in Alberta today."

When this question is asked 'out of the blue', the following come to mind: CANFARM, The Alberta Hog Marketing Board teletype computer system, the Cattlemen's Short Course at Banff, and the Alberta Potato Commission market promotion methods. All are examples of the innovative harnessing of business and technology to meet wants.

The University of Alberta has participated in all of the foregoing four innovations in one form or another. For example, the Cattlemen's Short Course involves both the Faculty of Agriculture and the Department of Extension.

(ii) Presenting the "Big Picture" Facing Agriculture

The farm unit exists in a family, community, regional, provincial, national and international context. Only in a time of severe farm product surplus is there any interest in the total forces at work in agriculture. Now, finally, "Canada, the breadbasket of the world" syndrome is being challenged. So is the idea that all problems can be solved by producing more, e.g., "two blades where one grew before."

The University of Alberta Faculty of Agriculture is responding by conducting some marketing research and some sociological research and extension through the Department of Agricultural Economics and Rural Sociology. There was some Faculty of Agriculture involvement in the Unifarm/A.D.A. effort to gain farm unit operator views on the Task Force Report. There has been some small town 'main street' business extension response from the metropolitan-centred Faculty of Business Administration and Commerce. The School of Household Economics is contemplating a study of "consumer reaction to product promotion: funded by A.A.R.T. The Department of Geography is carrying out some 'rural to urban' migration

studies. Transportation and distribution research has been left to government (federal) and to agri-business (railroads and the pools).

(iii) Discovering the Marketing Function

At the Canadian Agricultural Congress held in March 1969, one of the position papers and much of the comment centred on the need for marketing. To university economists 'marketing' could be all-inclusive by encompassing marketing economics, marketing structures and theories of price and competition. To government extension services the word 'marketing' meant promoting locally grown products in supermarkets or helping to fund producer advertising efforts. To the farm organizations it meant obtaining large quantities of funds from government with no strings attached.

Interestingly, the farm unit operators to whom our study team talked showed surprising sophistication and breadth in their knowledge of marketing. Before such 'grass roots' contact, our team felt that the operator might confuse market information with marketing information.

The Department of Agricultural Economics and Rural Sociology is making bold attempts to enter the marketing research and extension arena. For example, there is the research of: Hawkins, Warrack, and Pattison on "Intracity Retail Food Price Behaviour and the Impact of Price Enquiries"; Hawkins and Manning on "A Study of the Montreal Wholesale Beef Trade"; and Manning on "Performance of the Hog Marketing System in Alberta." The whole series of U.ofA. Agricultural Economics Research Bulletins is a fine extension effort. Credit goes to the Department of Agricultural Economics and

Rural Sociology, the Department of Extension, A.A.R.T. and agri-business funding supporters.

These are merely the start of a needed major continuing multi-discipline, multi-institutional, multi-experience concern for an upgrading of agricultural marketing knowledge. Other faculties and departments such as business administration, psychology, sociology, household economics should be involved in agricultural marketing research, teaching and extension. The community colleges and extension centres must add marketing courses to evening certificate programs. For instance, Mount Royal College has an "Agricultural Marketing" course in its 1970-1971 program.

(iv) Farm Adjustment

To-date there has been no definitive economic, psychological or sociological research, teaching or extension on the subject of farm adjustment in Alberta. Universities and colleges can fill a very important want and need in this area. Field extension/research is needed immediately to find methods of 'cushioning' the 'shock' of change.

(e) Meeting the 'Quality of Living' Wants

With improved transportation and communications 'rural isolation' is much less prevalent. Thus the general extension programs of various universities and colleges, centred in metropolitan areas, are available to regional residents.

With regional extension program subject matter inputs, universities have a role to play in meeting particular transitional problems such as farm adjustment, trading centre rationalization and urban sprawl. Only the Department of Agricultural Economics and Rural Sociology and the Department of Sociology at U.ofA. have endeavoured to meet these needs.

The undergraduate and graduate programs in the Faculty of Agriculture have rural sociology patterns. The F.U. & C.D.A. "Rural Sociology and Rural Economics Study Sessions" contain U.ofA. inputs such as "Changing Rural Attitudes". However, relatively little of the undergraduate or graduate material makes the adult education scene.

Mount Royal College has two courses in the area of planning: "City and Regional Planning" and "Settlement Geography". The first is an evening course and makes reference to regional and rural concerns.

The University of Calgary, Division of Continuing Education held a "Conference for Rural Church Leaders" in the Fall of 1970 at Olds. The course description refers to increasing social and economic change in the rural community. This course illustrates the type of course and location visualized by our study team in regard to establishment of the Alberta Extension Centre at Olds.

Communications hardware and software programs are also building at the University of Calgary. For example, the use of $\frac{1}{2}$ -inch videotape in a social change context is relevant to any Alberta region where involvement, concensus and action are required on community development matters.

Pollution control has become an emotional issue of late. The farmer could suffer because of this. There is a need for university and college programs designed to inform the public, including farm unit operators.

4. COMPETITION AND OVERLAP AMONG UNIVERSITY AND COLLEGE
EXTENSION AND EXTENSION BY OTHER AGENCIES OR GROUPS

(a) Types of Overlap and Effect

There is a fine line between healthy competition and duplicative overlap: the deciding factor is generally quality of performance and the public is quick to determine this (if the public has to pay).

Over the years, there has been competition between the University of Alberta and the Alberta Department of Agriculture in regard to publications, research and extension functions. Since 1965 and the formation of the Alberta Agriculture Co-ordinating Committee most of this active competition has been transformed into passive jurisdictional recognition. Currently both are probing toward active complementary interaction.

However, with the advent of other universities and now a growing community college system, there is the potential for multiple competitive and overlap postures. Constructively, competition (negatively, overlap) may potentially occur on the following levels as regards extension:

- university vs. university (not too likely if there continues to be only one agricultural faculty in the Province).
- university vs. college (quite likely with the aggressive competent agricultural course-offering posture of say Lethbridge Community College).
- university/college vs. government department (quite likely if Canada Manpower/Department of Education/Department of Agriculture courses are not co-ordinated and integrated by some form of extension clearinghouse).

As the private consultants writing this study, the reader will recognize that we are biased in the following comment. We feel that private industry, including consultants, face subsidized competition for research projects by university researchers who bid on the basis of incremental costs and rely on virtually free facilities and student research labour.

(b) Reducing Overlap

It should not be necessary to create a new body to reduce duplication of provincial extension efforts. The Alberta Agricultural Co-ordinating Committee (A.A.C.C.) is capable of acting as a clearinghouse for research and extension including that which is conducted by private industry, providing agri-business, managerial farm unit operators, colleges, and farm organizations are admitted. Chart 6-1 shows the existing Committee structure. Chart 6-2, (and 5-3) show it revised and renamed the "Regional Extension and Research Advisory Council".

To further reduce duplication of extension effort we propose that an 'Extension Triumvirate' be established. This triumvirate would be composed of the Extension Communications Group, the Alberta Data Bank and the Alberta Extension Centre (and subcentres). This triumvirate would also perform a 'clearinghouse' role for audio-visual programs, publications, and courses.

There is room for better co-ordination of extension effort between the University of Alberta and the Alberta Department of Agriculture. Jurisdiction for agricultural extension is in the hands of the A.D.A. and it is recommended that it remain there. But it is necessary to ensure that useful and pertinent research information from the University is extended. The 'Extension Triumvirate' will further this.

Some overlapping facilities have been justified in that costly delays might result if some projects are not initiated with public funds. In other instances it has led to overly large and often unwieldy public service groups striving for additional funds to perpetuate themselves after the original purpose has ceased to exist or is adequately covered now by others. Use of 'full costing' may minimize this.

In terms of incremental dollar outlay, universities are often able to provide advice at a lower cost than private firms. But if public funds are to be spent, the full cost should be known. Public funds pay for the overhead costs of university research and extension facilities and staff. A portion of these costs should be applied to the cost of new courses, testing, extension, consulting and any other projects if they are to be fully-costed. Existing programs should also be fully-costed. The cost of a program or service may then be weighed against the cost of the same service put on by industry, or government or farm organizations. With the 'total' costs revealed, competition would then be on the basis of innovativeness of research ideas.

The argument is raised by Dr. O.M. Solandt that applied research, which results in a practical product or a process, "is better done in industry because that's where it's going to be used." In terms of both agricultural and regional needs, and as an overlap-reducing function, the encouragement of private industrial research and extension is a logical step. There is now some good applied research and extension being conducted outside of the Canada Department of Agriculture and the universities.

Bias against agri-business involvement in research and extension is not a problem. As pointed out in Chapter 4, the farm unit operator is not concerned about the agri-business 'credibility gap.' He is concerned about the university and research station 'practicality gap.'

5. GOALS TO MEET PRESENT AND FUTURE NEEDS(a) Establishing Goal Priorities

Essentially the extension objectives must be 'goal-directed.' One of the first steps in defining goals is to sort out the priorities. These must be in accord with the total co-ordinated extension program in the Province.

Among the most pressing priorities at universities and colleges is to make research, teaching and extension of practical value to the agricultural community. Also, managerial and emerging farm units should have some means of ready access to faculty members. Our priority recommendation is that this can in part be accomplished by the University of Alberta, Faculty of Agriculture Departments agreeing to house and work with 'joint appointed' Alberta Department of Agriculture subject matter specialists. These 'joint appointees' would be appointed for set time periods on a rotational basis.

Another priority is that the University of Alberta host an Extension Communications Group on campus. Charts 6-2 and 6-4 show its position; Appendix 6-1 gives its functions.

Further priorities are that the Master of Arts degree in Community Development be strengthened and that the Olds Agricultural and Vocational College be used as an Extension Centre for most adult education courses.

(b) Reducing Overlap

Our study supports the view that there be one fully integrated Faculty of Agriculture in Alberta for some years to come. This does not prevent regionally tailored agricultural adult education programs or the use of Olds as the Extension Centre.

There should be competitive, and open bidding for research studies and extension programs among universities,

colleges, government and the private sector. Studies and programs should be granted to the most innovative and competent individual or group of individuals submitting the lowest bid, consistent with the full-costing principle. Only in this way will the best interests of the Alberta taxpayer be served.

Government subsidized soil and feed testing services should also be fully costed. Taxpayers should not be required to subsidize government or university facilities and staff for these purposes once adequate private services are available.

Research institutions, both federal and provincial, should review their individual positions with regard to the extension service of routine testing of crop varieties, pesticides, animal feeds, machinery, and fertilizers. Routine testing by staff better utilized in new research is a loss of efficiency for the entire agricultural extension system.

(c) Research into Measuring Goal Achievement

Throughout all extension programs there is a thread of 'intangibility.' If past programs are not evaluated, how may new programs be devised that are more effective?

Universities and colleges measure demand by the number of students (adult, part-time, full-time) who enroll. Government extension services use a similar standard plus tabulations of number of farm visits, telephone requests, radio and TV broadcasts by field workers. Such standards speak to 'quantity' and are 'measurement' not 'evaluation.'

Rather than this macro measurement, the ultimate aim is to be able to define, in advance, that a specific extension program will, in economic and/or social terms, produce X benefits in Y years on the basis of Z expenditures. Also, that there is no overlap with existing programs. Further,

that the program is meeting, or is not meeting, sub-goals annually on the way to its final goal.

Some work in evaluation of extension programs has been done in Wisconsin, Ohio and New York. It indicates that more research is required. At best, Thorvald Buch Hansen (University of Wisconsin) is able to classify types of evaluation (Number 2 is rather weak):

1. Evaluation of results - changes in learner's behavior, situation and practices.
2. Evaluation of means - the formulation of program objectives, the program resources and processes.

Patrick Boyle, also of Wisconsin, sets out two approaches to evaluation:

1. 'grass roots' research,
2. using extension service past experience to devise 'evaluative criteria.'

He favours the latter. We favour the former.

Questionnaires are the most often used devices in regard to evaluation of extension programs. Little has been done to utilize devices such as problem-situation tests or to maintain records of displayed behavior, or to do $\frac{1}{2}$ -inch videotape (V.T.R.) depth interviews, or to attempt case studies.

The growing differences in audiences among types of farm units dictates the need for research into more sophisticated program evaluation. Otherwise the relevancy factor will plummet.

The field of formal education is the most advanced in terms of analysis of the speed and quality of learning. It appears that little of this theory and case study experience has been transposed into agricultural extension program evaluation.

In 1923, the United States Department of Agriculture (U.S.D.A.) set up a small research unit to study methods of extension program evaluation. Its conclusions to-date seem to be that:

- (1) more 'fundamental' research is needed into why some people participate in extension educational efforts and others do not; and,
- (2) educational research beyond a classroom setting cannot use the precise experimental controls of formal education.

Our study team suggests the need for immediate research into evaluation techniques. Much can be drawn from formal education for use in regard to the Managerial Farm Development (M.F.D.) program which will have a classroom aspect to it. For instance devices in the realm of pre- and post-testing of knowledge-understanding on M.F.D. courses should be examined. For field-centred programs, such as Resource Development (R.D.P.), new techniques of 'grass roots' interviewing (such as $\frac{1}{2}$ -inch videotape) will have to be adapted and new research done. The whole area is relatively unchartered.

6. POSSIBLE CHANGES IN OBJECTIVES, PROGRAMS, AND METHODS
OF APPROACH IN UNIVERSITY AND COLLEGES EXTENSION

(a) The Co-operative Extension Service

Our study does not recommend that Alberta institute an extension system modelled after the United States Co-operative Extension Service. There are five reasons for not making such a recommendation:

- (1) The Provinces guard their jurisdiction over all forms of education granted under the British North America Act.
- (2) The Provinces do not have a system of land grant colleges serving as extension centres.
- (3) The Canada Department of Agriculture has not been charged with co-ordinating a broad national extension effort as has the U.S.D.A.
- (4) Our national experimental stations are not set up in association with universities.
- (5) While three-way cost sharing of joint appointees and others appears to be working on the surface in the C.E.S., visits by our study team members to various states reveal fragmentation. Such arises from the "serving of three bosses" which is basically a bad management principle.

Nevertheless there are two aspects of the C.E.S. which Alberta can adopt.

- (1) A university campus can be used as the impartial and reflective atmosphere for the location of a free access communications group and possibly a data bank.
- (2) University/field extension/farm unit communications can be strengthened by 'joint appointees' located on campus, with the modification that their salaries are

paid by one institution and promotion depends on extension competence, not teaching or research.

(b) Internal Changes at the University of Alberta

It is recommended that the Managerial Farm Development (M.F.D.) Program subject-matter specialists as well as Resource Development (R.D.) Program specialists spend three-year terms at Alberta universities as 'joint appointees' on a rotating basis. Three years is chosen as an optimum learning and dissemination span before the specialist loses his freshness and originality. A University of Alberta department, such as Agricultural Engineering (which helped us develop the joint appointee idea), would agree with the A.D.A. on a specialist to take up residency. The U.ofA. would furnish the office facilities, steno pool and other support services, while the A.D.A. would continue to pay the specialist's salary and expenses. The specialist would continue to be attached to the A.D.A. but he would be relieved of field tasks in his Region. He would spend at least 50 per cent of his time with the other Regional Specialists. This would speed up two-way communication on practical matters related to each subject area. The other 50 per cent of his time would be spent in the university learning about new research, putting it into a practical context, and feeding back farm unit reactions and problems to teachers and researchers.

Each of the Departments of the Faculty of Agriculture, the School of Household Economics, the Faculty of Business Administration, the Department of Sociology of the University of Alberta plus departments, schools and faculties of other universities in the Province would be encouraged to invite Alberta Department of Agriculture specialists to become resident on this basis. Not all departments would wish to invite specialists onto the campus and the A.D.A. would be selective in those it proposed. Receiving an invitation or

being proposed would be for recognition of work in the field and ability to communicate among researcher, specialist and farm unit operator.

A second recommendation is that the University of Alberta host an Extension Communications Group (E.C.G.) on campus. This will be a core group of communications experts and facilities. Funds will in part be supplied by the A.D.A. The group will function as the A.D.A. information services arm. However, the Agricultural Supervisor from the University Department of Extension (formerly the Agricultural Secretary) should be housed in these new facilities, and integrate with the core group.

The E.C.G. will be a regional education instrument in Province-wide use. It will not serve the A.D.A. solely though the A.D.A. will have ultimate responsibility for it. The E.C.G. will be the communications program co-ordinating centre for all government, university, farm organization, college, co-operative, and agri-business extension audio and audio-visual production. In addition to co-ordinating programs, the E.C.G. will give grants-in-aid of research into effective communication. Its TV Lab and other facilities will be rented by agri-business, the universities, colleges and farm organizations for training and upgrading their own staffs in communications. The main function of the E.C.G. staff will be that of professional production and direction of programs. The E.C.G. will provide good facilities under supervision for the use of all sectors of agriculture on an open but scheduled fee/time basis. The E.C.G. staff will monitor the total communications effort. It will determine where problems of information dissemination are acute and what progress is being made year by year in the total regional communications effort. The structure of the E.C.G., its staffing, costs, and operations are set out in Appendix 6-1 immediately following the Charts in this Chapter.

The E.C.G. will be a valuable tool for industry. There is good reason to believe that it can be run as an independent commercial venture. It is recommended that the A.D.A. should prepare a 'Request for Proposals' when this group is to be formed rather than assume that the A.D.A. must bear the full load of construction, start-up and continuing operations. Publishing/visuals companies would be among the likely bidders.

(c) Internal Changes at Other Universities and Colleges

The University of Alberta will remain the focal point for formal degree education in agriculture. Other universities in the Province will teach and carry out research in specific fields unique to their region, e.g., Lethbridge Community College in irrigation technology. There is merit in regional study and in widening the number of subjects. However, quality of facilities and staff precludes a multiplicity of programs on a regional basis.

(d) Internal Changes at Agricultural and Vocational Colleges

The Agricultural and Vocational Colleges should come under the jurisdiction of the Alberta Colleges Commission. Their activities would be better co-ordinated with the total Alberta educational system and their future use as 'extension centres' could be broadened beyond agriculture into 'regional development institutes.' Vermilion should become a community college having a School of Agricultural Technology. Olds becomes part of Red Deer College. Fairview becomes an 'autonomous agricultural college.'

Integration into the provincial educational system may force the Olds, Fairview and Vermilion Colleges to clarify their roles. A more suitable role may be to concentrate on adult education, while retaining the agricultural technician and two-year agriculture certificate programs. Academic upgrading and vocational courses may better be provided by community colleges and technical institutes. Thus in

Chart 6-6 we show such concentration of effort focussing into Schools of Agricultural Technology.

At the invitation of these Schools, A.D.A. Managerial Farm Development and Resource Development Specialists could become 'joint appointees.' They could teach at the Schools and extend in their Regions on a 50-50 basis. This follows the same rationale as for university 'joint appointees' except that the 50 per cent of time devoted to learning research becomes 50 per cent devoted to upgrading staff and students of the Schools.

Another change would be Olds hosting the Alberta Extension Centre, with Fairview, Vermilion, and the Lethbridge Community College hosting extension sub-centres. Olds would program courses the year around, such as seminars and training schools to upgrade farm unit operators, farm wives, home economists, educators, agrologists, salesmen, businessmen and all other Albertans in the regions. The structure of the Extension Centre is shown in Appendix 6-2.

(e) External Changes to Assist Internal Changes

(i) Agri-business

Agri-business will not suddenly take a more active part in extension, except where it is profitable or leads ultimately to expanded markets. It is willing and able to supply facilities for testing, publishing, and lecturing on a limited contribution or pay-as-you-go basis. The time of an experienced agri-business communicator can be bought by the A.E.C. or the E.C.G.

(ii) Consultants

Consultants are a professional part of the agri-business scene. They sell service, education, and

research. They may be prepared to bid on teaching assignments, research, testing, library compilation and other extension inputs.

(iii) The Alberta Agricultural Research Trust (A.A.R.T.)

It was begun in 1966 as one step toward more applied research at the U.ofA. The A.A.R.T. is already outdated in terms of flexibility and research scope. It must foster research on regional problems associated with farm adjustment. It can encourage business administration research for agri-business and other industries in regional Alberta. It must encourage regional planning research from a regional not a metropolitan standpoint.

In order to accomplish these broad objectives the Board of the Trust must be widened to include people with disciplines and experience beyond that found in the agricultural industry. Research grants must be provided to colleges and universities other than the Faculty of Agriculture, University of Alberta. Grants must be available to private industry and research teams as well without the stricture of the University of Alberta, Faculty of Agriculture monitoring or insisting on project leadership.

(iv) The A.D.A.

Specialists would be released from Regional duties to serve 3-year terms as university or extension centre 'joint appointees.' This would require sufficient depth of staff in say the M.F.D. groups in each Region to allow one or two specialists in one or two subject matter areas the necessary freedom of action to monitor research, upgrade their fellow specialists in their own and other Regions, and contribute to School of Agricultural Technology staff and student upgrading.

7. NEW ORGANIZATIONAL STRUCTURES TO EFFECT CHANGES

The internal and external changes which have just been discussed will lead to structural changes in the universities and colleges administration. In simple form, the changes have been reproduced on Charts 6-1 through 6-6.

Chart 6-2 shows the effects of the study recommendations in 1975, 1980. The direction of the arrows illustrate that farm units, farm organizations, and business groups will be required to take the initiative in seeking information. However they will have a voice on the Regional Extension and Research Advisory Council, the replacement for the present Alberta Agricultural Co-ordinating Committee which is too narrowly representative of Alberta agriculture. This Council will press the Alberta Colleges Commission to 'keep channels clear' so that farm and business groups or individuals may 'random access' the precise information that they require from any institution of learning, and any teacher or researcher in those institutions.

Chart 6-4 shows the 1975, 1980 projection of structuring within all universities as regards agricultural and resource development extension. Important changes are the 'joint appointees' and the Extension Communications Group.

Chart 6-6 shows the Agricultural and Vocational Colleges in 1975, 1980 under the general direction of the Alberta Colleges Commission but requiring input of A.D.A. expertise. Olds becomes the main Alberta Extension Centre. Sub-centres are located at Vermilion, Fairview and Lethbridge Community College. In addition to adult extension education, formal education programs in agricultural technology are also available through Schools of Agricultural Technology or Agricultural Education (Lethbridge).

8. FUTURE SUBJECT MATTER EMPHASIS IN UNIVERSITY AND COLLEGE
EXTENSION SERVICES

(a) Realization of the 'Big Picture'

Future emphasis will be regional and on individuals, families and communities within each region. The problems of irrigation districts in Southern Alberta create a different set of needs than those of regional residents of the Peace River Region. Newer regions have different needs than the older, more settled regions. The common factor in all regions is people with an array of wants and needs.

Extension efforts in the past emphasized agriculture but now are beginning to take some note of the importance of municipal planning, rural sociology, recreation, non-agricultural resource management, and urban encroachment. Future Province-wide extension may place greater emphasis on the non-agricultural sector in each region.

Regional extension will place more emphasis on small town 'main street' businesses. Those businesses and industries which supply and service agriculture are particularly vital. Specifically, ways and means should be found whereby business acumen can be upgraded in polarized growth centres in regional areas. Management training courses for 'main street businessmen' at the Alberta Extension Centre can be the answer.

All of this means the involvement of skills and disciplines beyond that within agricultural faculties and schools. Thus, the 'Extension Triumvirate' of the Alberta Data Bank, the E.C.G. and the Alberta Extension Centre have to draw upon varied skills from any source within or outside the Province.

(b) Emphasis on Weak Areas

(i) Marketing

Emphasis has been placed on improved production technology and efficiency since the beginnings of

extension. In the U.S., the C.E.S. predicts significant changes in extension emphasis in "A People and a Spirit". Marketing, economics, and management accounted for only one third of the total extension effort in 1966 but will account for one half the effort in 1975. Production extension will decline from two thirds to one half.

Recent emphasis on marketing has increased the non-production oriented extension work in Alberta. But non-production extension accounted for much less than one third of total extension effort in 1966. To devote 50 per cent of the total Alberta extension effort in 1975 to non-production subject matter would involve a considerable shift in emphasis.

Marketing means much more than just marketing economics. By C.E.S. definition, it involves marketing decision-making by producers, marketing systems, market expansion, new processes and products, and new supply and marketing enterprises. The skills required by extension subject matter specialists to deal with these topics will require inputs from many different areas.

Business administration faculties may best provide instruction in marketing techniques, management and strategy, sales, advertising and public relations. Consumer motivation may come from a university psychology department.

Academic skills alone cannot suffice. Agribusiness marketing people with 'first-hand operating experience' can contribute valid written or lecture subject matter input to extension upgrading in marketing.

"A People and a Spirit" notes two additional factors. One, that an extension service is limited in

what it can do to expand markets and two, that there is a planned de-emphasis of marketing upgrading of individual producers in favour of marketing groups, such as Boards and Commissions.

Our study envisions marketing groups as well as farm units taking the initiative to access the Alberta Data Bank, E.C.G. or Alberta Extension Centre for literature and expertise.

(ii) Managerial Decision Theory

The first step toward use of managerial decision theory has taken place with the introduction of CANFARM bookkeeping and analysis. Next, farm unit operators, marketing groups and agri-business people will be ready for management courses similar to those to which urban business managers have been exposed for many years. This will involve business administration, commerce and managerial economics people in the education process. An A.D.A. Business Specialist in the Managerial Farm Development program should be a 'joint appointee' of a business administration faculty.

(iii) Communications Theory and Practice

The teaching of communications theory and the practical application of this theory are university and college courses which require good facilities and staff. This is a primary reason for the recommendation to form an Extension Communications Group having the necessary hardware, software, and technical expertise.

Upgrading in communications is required for Alberta extension workers consistent with the formation of the Extension Communications Group. In addition, agrologists, business administrators and sociologists working with expert producers, directors and writers can combine efforts to produce high impact information releases in print, audio, visual, and audio-visual form.

(iv) Regional Development

There is no subject matter pattern in formal education or adult education in any Alberta university or college that deals with regional development (meaning non-metropolitan). Regional in terms of land use means: agriculture, mining, petroleum, gas, lumber, wildlife, recreation, highways, railroads, pipelines, gas plants, industrial and residential subdivisions, and satellite towns. In terms of a population cross-section, it means farm unit operators, country residents, commuters, oil workers, recreationists and so forth. It means 'urban-rural interlock' where both are assimilated. There are 700,000 Albertans living outside the major metropolitan areas of Edmonton, Calgary, Lethbridge, Medicine Hat and Red Deer. These people affect and are affected by the metropolitan centres in a 'metropolitan-regional interlock.'

Courses on planning, sociology, resource management, and ecology could be introduced into adult education in regional development. Research to-date has centred on planning in metropolitan areas. Regional trading centre patterns have been surveyed by the Provincial Planning Commission, but not at any length. Farm unit operator interviews indicated a keen awareness of change and a desire to know more about cause and effect in their community and region.

Our study agrees with the Department of Agricultural Economics and Rural Sociology in recommending a "provincial development plan" which would investigate emerging "functional regions" each with a central trading town. Dialogue between regional residents and researchers can be fostered by the build-up of awareness through extension courses in regional change put on at the Alberta

Extension Centre, or tapes and audio-visual presentations made at the E.C.G. All of this might build the background and sensitivity for a "provincial development plan." At the very least, it may help to cushion the 'shock' of agricultural and regional adjustment.

9. TRAINING ROLE OF UNIVERSITIES AND COLLEGES IN FUTURE EXTENSION

(a) Undergraduate Training for Extension Workers

The future need in Alberta for production-oriented undergraduate agrologists will continue as government extension specialists in Managerial Farm Development (M.F.D.) programs, as resource people for the Alberta Data Bank, in research stations, in agri-business, and in consulting. If regional development training is improved, undergraduates can be vital forces in farm organizations and as Resource Development Program Specialists.

Our study has found that production, engineering and economics courses for agricultural students are well in hand and are being subjected to adequate forward planning to meet scientific and operational change. The gaps lie in the areas of extension training. Business administration and communications courses are lacking but sociological input has been bolstered of late.

The application of knowledge can be improved with the inclusion of communications courses in undergraduate programs. Some feel this should be left for specialized graduate work. However it is important that the undergraduate student be able to test his aptitude for communications work at this stage. If he or she subsequently goes into extension work, well and good. If not, the exposure to the subject of communications will have served a useful purpose, nonetheless. Adult life is spent in trying to communicate with others in some way.

(b) Graduate Training and Upgrading for Extension Workers

Our study indicates that production and other subject matter skills will become more specialized. Extension, adult education and communications techniques, though taught by experts, will be adjuncts to other

subject matter skills. Thus, extension people in future will be animal science, plant science, economics, business administration, regional development or recreational specialists who have a common grounding in the extension process. This is not the case at present. It must be the case by 1980 because regional programs will require an effective dialogue between extension workers and people in the region and among extension workers.

Existing graduate programs in extension education in Alberta are much narrower in scope than in the U.S. The programs currently available, at the University of Alberta only, are the M.A. in Community Development, the Diploma in Post Secondary Educational Teaching and Administration, and the M.Sc. in Agricultural Economics.

The M.A. in Community Development is a multi-disciplinary degree which involves the Departments of Sociology, Agricultural Economics, Extension, Economics, Geography, Recreation, Psychology, Community Medicine, Anthropology, the Faculty of Education, and the School of Household Economics. The nucleus is available here for a graduate program in extension education. But there are two problems: the lack of educational objectives based on the future extension job requirements; and the difficulty of co-ordinating a program involving inputs from many departments, each with different and sometimes rigid standards. Our study team feels that it will be beneficial to make one faculty responsible for the program. Agriculture and Education are the best choices. If the E.C.G. were added, there could be a new Department under either Faculty called "Extension Education and Communications."

The Post Secondary Educational Teaching and Administration program in some ways comes closest to meeting rapid upgrade requirements of agricultural and regional extension

workers. It can be obtained in one winter session and two summer sessions. The tentative curriculum for the Teaching (not Administration) pattern is more relevant than either the M.A. in Community Development or the M.Sc. in Agricultural Economics (Rural Sociology Pattern). Courses include "Audio-Visual Communication in Teaching and Learning" and "Psychology of Learning and Teaching at the Adult Level."

The M.Sc. in Agricultural Economics (Rural Sociology pattern) has relevance to extension education. However the undergraduate economics prerequisites make it an extremely difficult and thereby unattractive program for present extension workers.

To give different extension workers the appropriate extension and communications skills the following types of programs will be required: a diploma course in agricultural extension, a diploma course in regional extension, a masters degree in regional development, a diploma course and masters degree in post secondary education, and a diploma course in extension communications. Students for these courses would be present extension workers in government, agri-business, and consulting. Planners, architects, engineers, and recreationists will probably be interested in regional development programs of study.

(c) Training of Non-Professionals

Programs in agricultural technology are progressing fairly well at the Agricultural and Vocational Colleges and at Lethbridge Community College. Such programs have the support of professional institutes and university faculties who feel that the bulk of farm operators will be better served by such courses. There is also the possibility of a greater role for sub-professionals in regional development and agricultural adjustment.

Use of lay, sub-professional workers was introduced in the H.R.D.A./A.R.D.A. community development work at Edson. The Home Visitors Program trained local women to help families in their own community. The training team of a public health nurse and home economist used informal classroom instruction, field work and weekly follow-up counselling. The Mobile Family Training Centres in use on the NewStart project at Lac la Biche are also staffed by local people. These types of programs may have considerable future applicability and benefit particularly in the 'human' Resource Development Program (R.D.P.).

Our study strongly recommends that programs for 'human resource development technologists' be introduced into Alberta's educational system. There will be a sizeable farm adjustment problem in the future which must be faced now.

(d) Training of Farm Unit Operators

Through lecturing on courses at the Alberta Extension Centre, university staff will be directly training farm unit operators. Such courses will also afford opportunities for university lecturer/researchers to present their ideas for 'grass roots' reaction. Training and information exchange will also take place in researcher/farm unit operator encounters in the researcher's office, made easier by our suggested 'open door' policy.

QUICK REVIEW OF ESSENTIAL IDEAS IN CHAPTER 6RATIONALE

Farm operators talk about a 'practicality' gap in use of university research information extended to them. They also indicate a lack of easy access to researchers or lecturers. Interviews at the A.D.A. and the University of Alberta show a need for revitalized lines of communication between the two, both of which have valuable inputs to the extension process. Agricultural and Vocational Colleges currently have a 'mixed' image and are thereby not realizing the full potential of facilities or staff.

If new relationships, organization structures and communication devices are introduced, more open and meaningful information exchange among farm units, extension workers, researchers and lecturers will ensue.

CONCLUSIONS

1. Managerial Farm Development (M.F.D.) program specialists and Resource Development (R.D.) program specialists will become 'joint appointees' at Alberta universities for three-year terms on a rotating basis (Chart 6-4). Fifty per cent of their time will be spent on campus in practical research liaison and fifty per cent will be spent in upgrading fellow specialists in the Regions. Salary would be paid by the government with recognition based on extension effort. Office and other facilities on campus would be supplied by the university.
2. An Extension Communications Group (E.C.G.), responsible to the A.D.A. but conceivably run under contract by communications professionals, will be located on the University of Alberta campus (Chart 6-4 and Appendix 6-1). The Agricultural Supervisor from the Department of Extension will join this group. The E.C.G. will charge the

government, universities, agri-business, farm units and farm organizations for use of its audio-visual production facilities. Staff would be capable of work in: 1-inch commercial TV, $\frac{1}{2}$ -inch videotape, video cassettes, audio tapes and cassettes, sight/sound packages, and photos. The E.C.G. will be the recognized focal point for all audio-visual production needs in agricultural or regional development extension.

3. Existing Agricultural and Vocational Colleges will phase out of the A.D.A. Vermilion will become a community college having a School of Agricultural Technology. Olds becomes part of Red Deer College. Fairview becomes an 'autonomous agricultural college.' Under new administration, the former College facilities will host the Alberta Extension Centre (Olds) and extension sub-centres (Vermilion and Fairview). Lethbridge Community College with its School of Agricultural Education will also host an extension sub-centre (Chart 6-6). The Extension Centres, responsible to the Alberta Colleges Commission, will be utilized by the A.D.A., universities and colleges, agri-business, farm organizations and others for seminars and other lecture courses. Olds will be the main focal point for agricultural and regional development courses: a sister centre to the Banff School of Fine Arts which concentrates on metropolitan-centred courses. M.F.D. and R.D. Program courses will be carried on at Olds and the extension sub-centres.
4. The Alberta Agricultural Research Trust will be broadened to encompass more varied types of research and to encourage access to research funds by any innovative public or private research organization in keeping with full-costing principles. The Board of the Trust will encompass more diverse experience and disciplines than that found in agriculture alone.

5. University subject matter and lecturing input to extension must encompass a wide variety of faculties and schools because the problems are ones of regional (rural) change as well as ones specific to agriculture. Emphasis to-date in other faculties and schools has been metropolitan (urban) centred. There must be a change in weighting of emphasis but before this happens researcher/lecturer interest must be aroused.
6. Universities must offer more courses in 'extension education' and 'communications' for agricultural and resource development extension workers. Agrology course patterns also need broadening to include more business administration, sociology, and regional planning.

CHART 6-1

Universities and Colleges in Relation to Farm Units: 1970

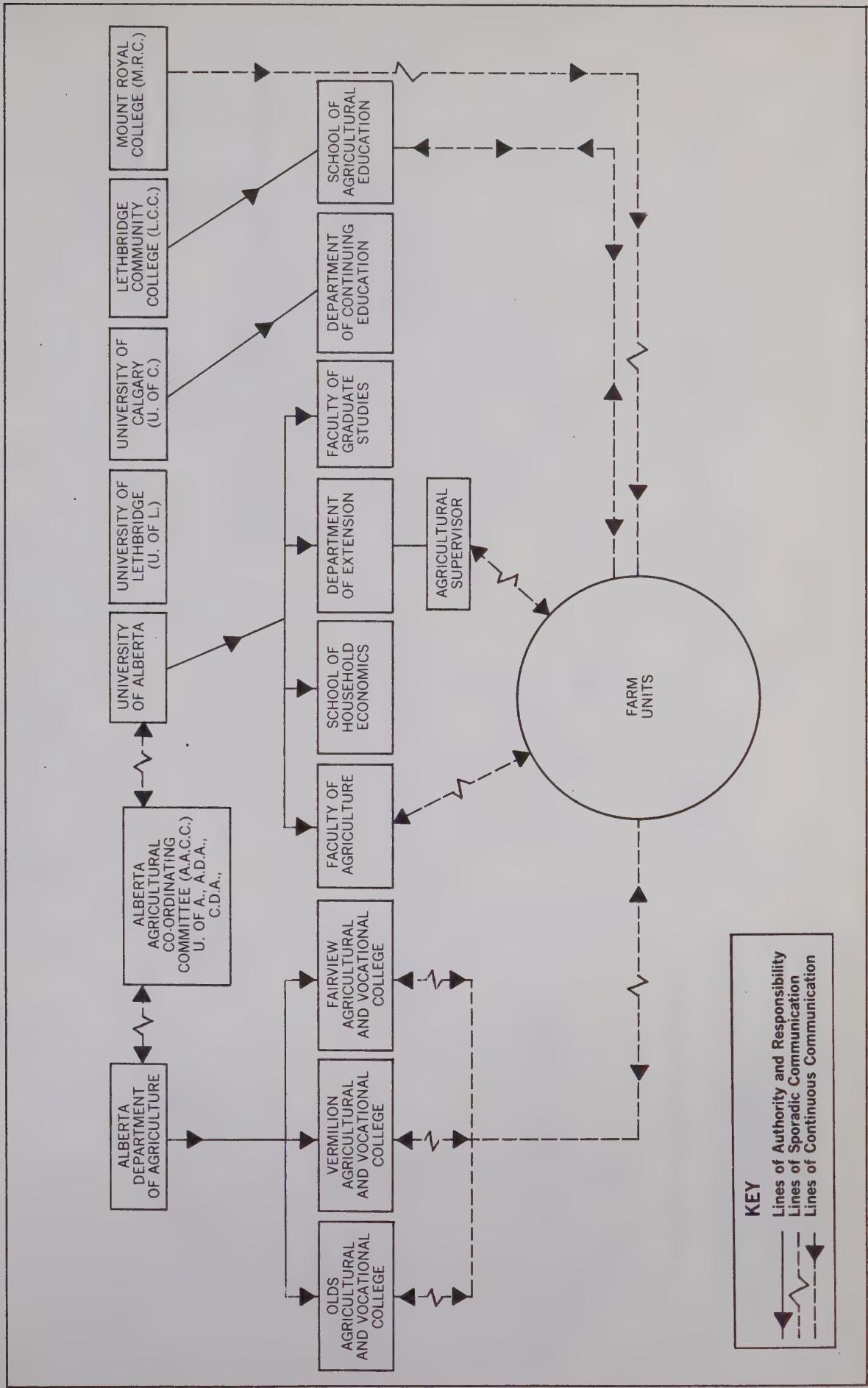


CHART 6-2

Farm Units in Relation to Universities and Colleges: 1975, 1980

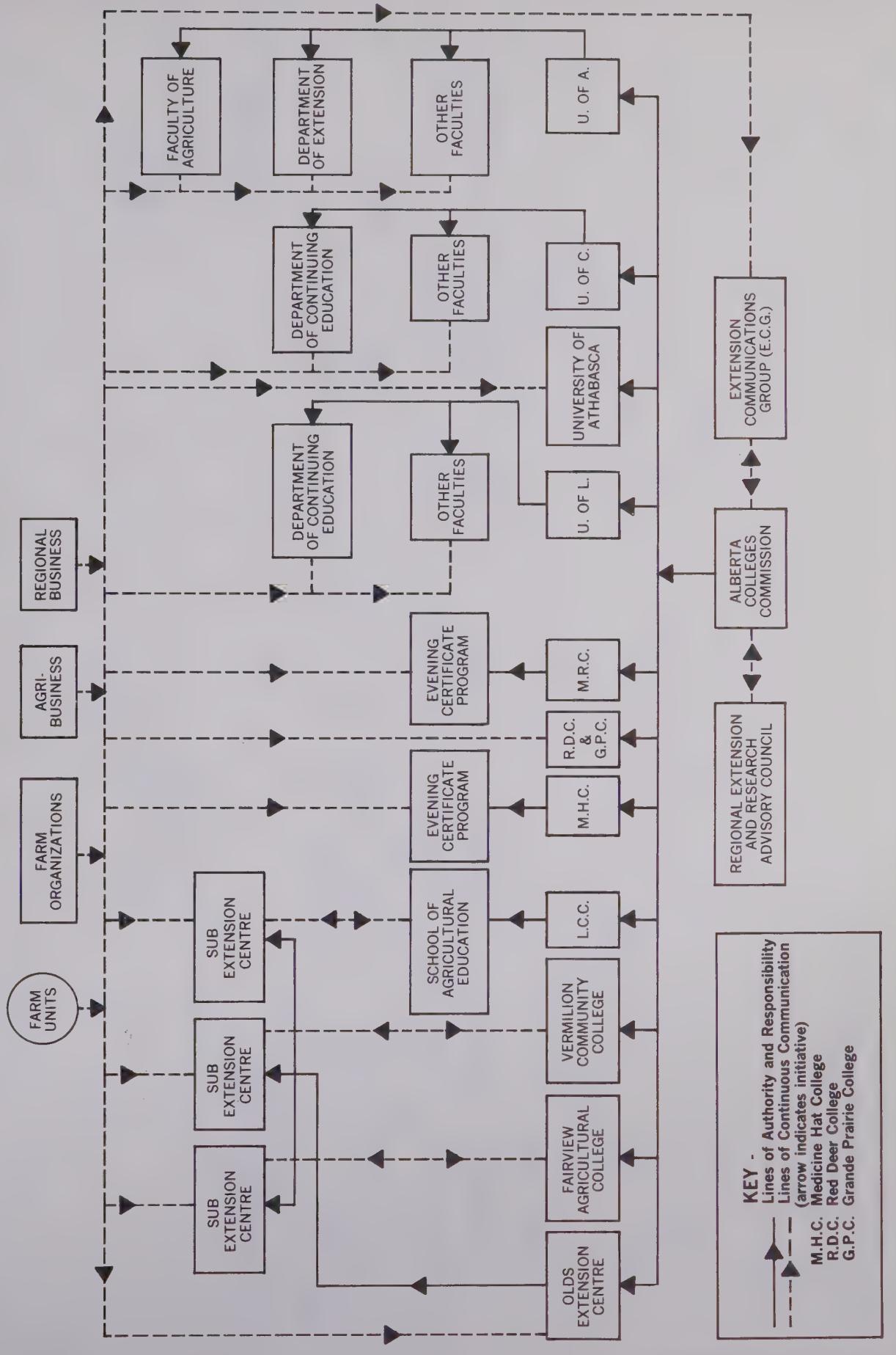
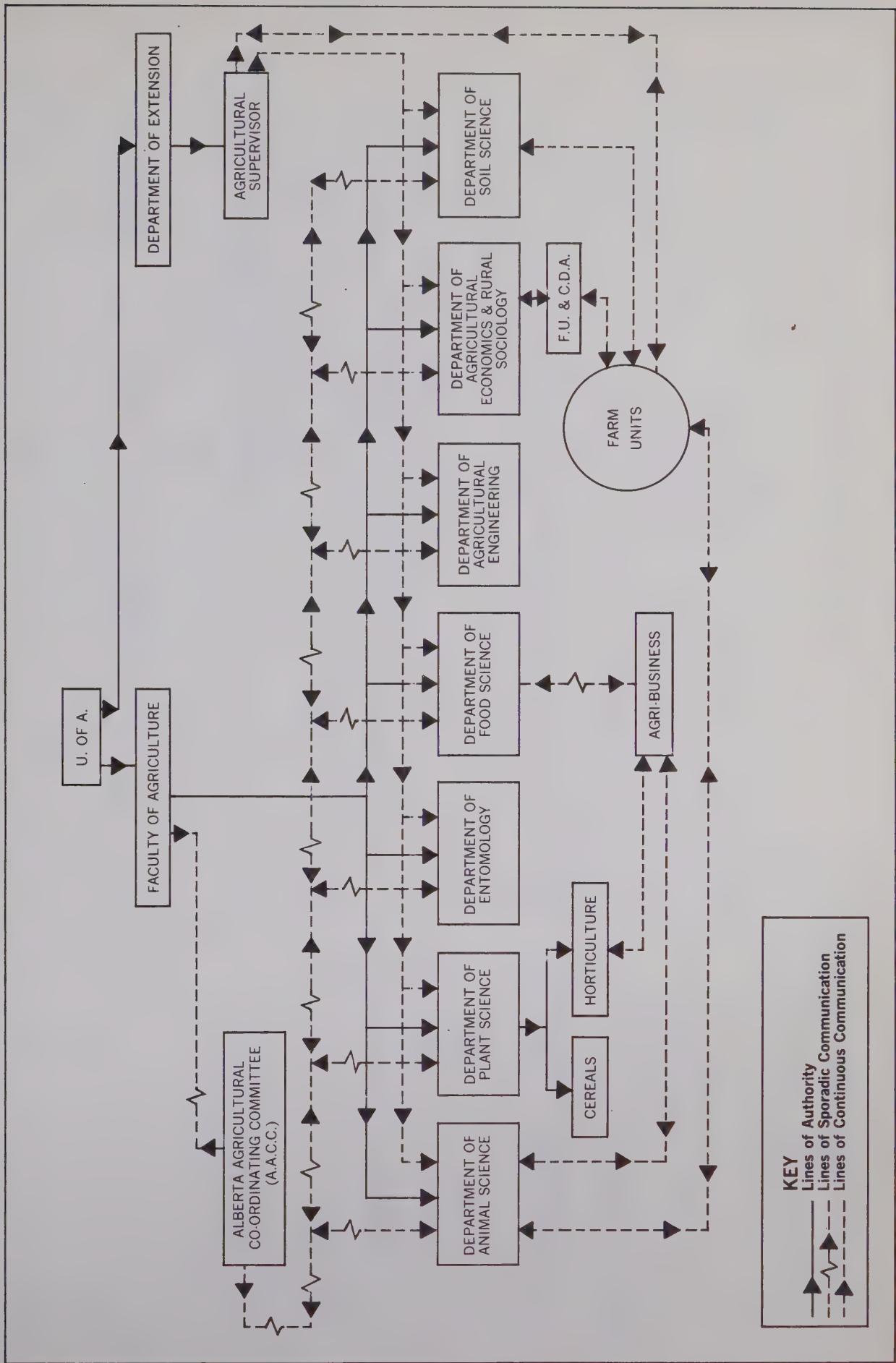


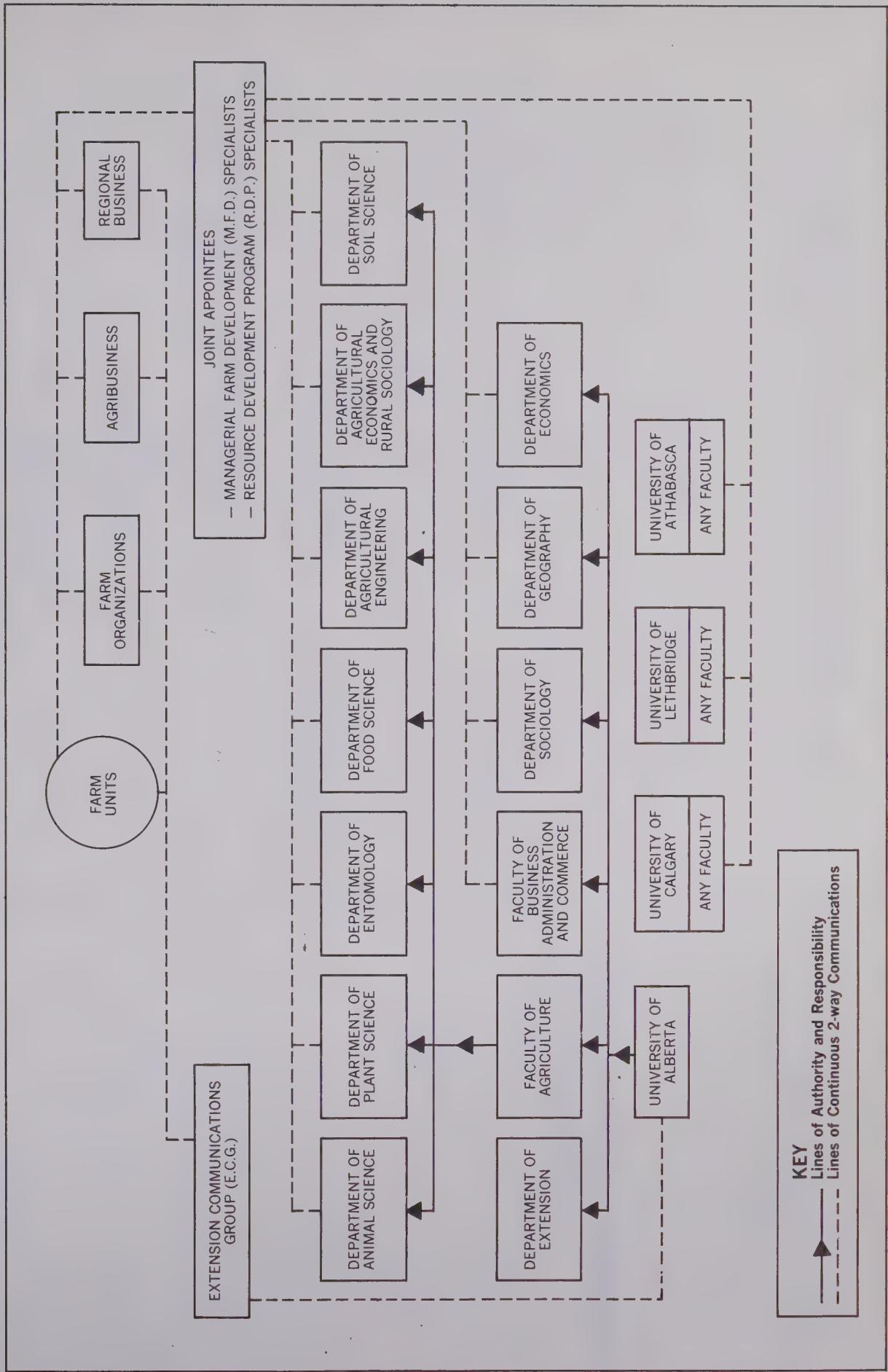
CHART 6-3

University Extension : 1970



University Extension, 1975, 1980

CHART 6-4



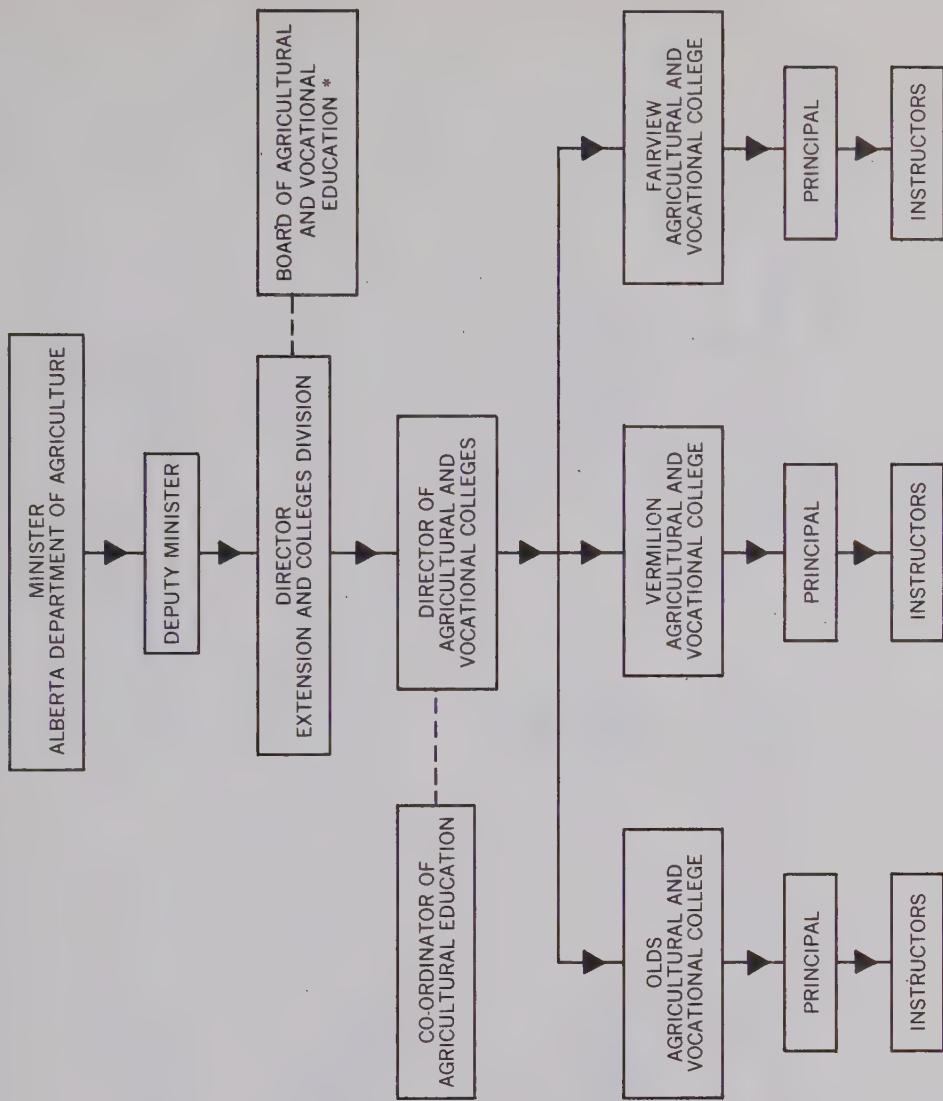
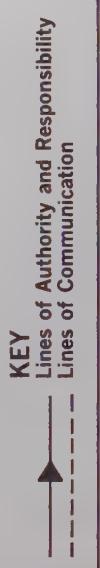


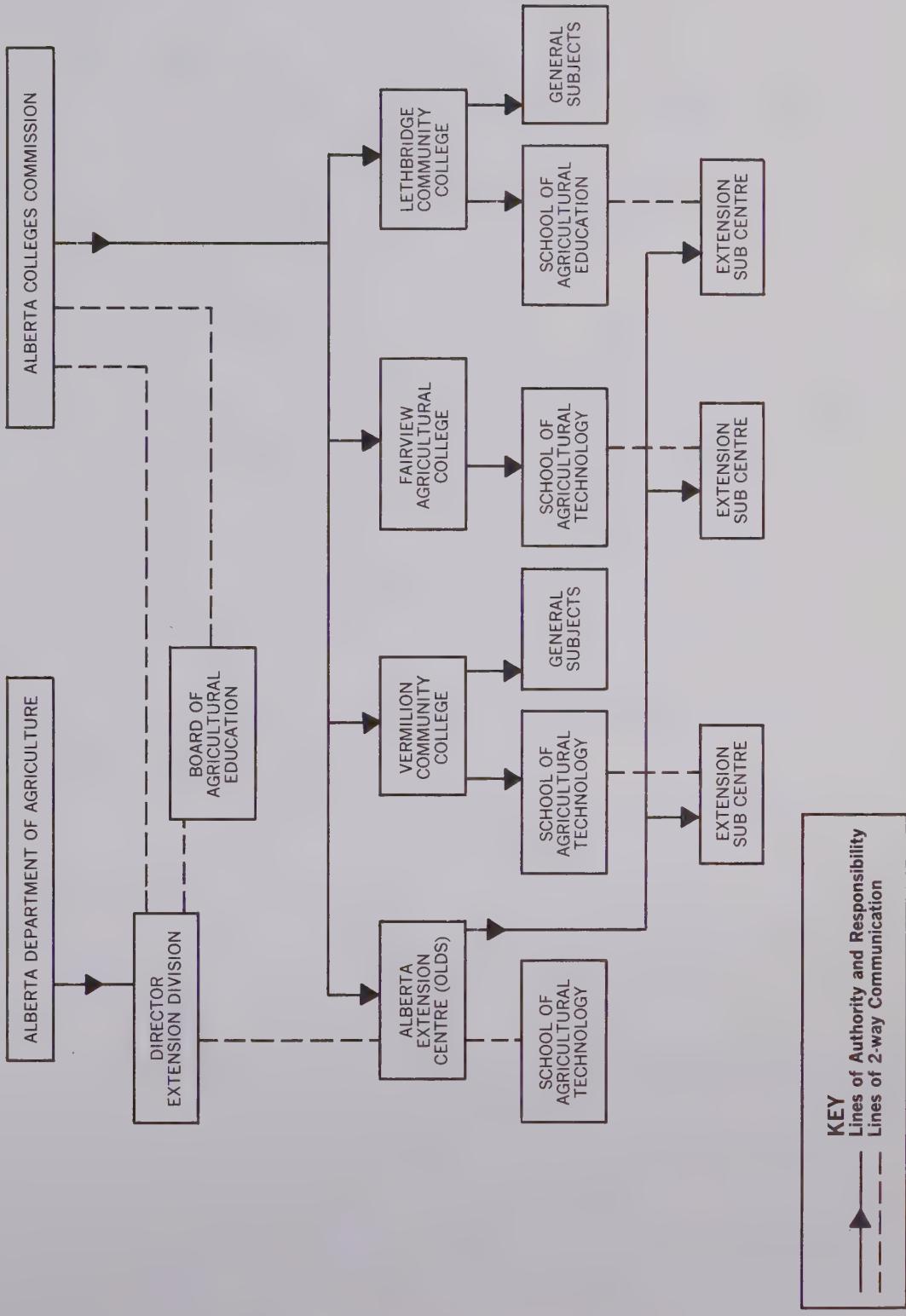
CHART 6-5
**Agricultural and
Vocational Colleges: 1970**



* Includes Deputy Minister of Education, Dean of Agriculture, Director of Extension and Colleges Division (chairman), Chairman of Alberta Colleges Commission, a representative of Alberta School Trustees Assoc., Alberta Assoc. of Municipal Districts, A.F.A., F.W.U.A., A.W.I., Agricultural and Vocational Colleges Alumni Assoc., and three members at large.

CHART 6-6

Agricultural and Vocational Colleges: 1975, 1980



Appendix 6-1

OUTLINE OF THE EXTENSION COMMUNICATIONS GROUP

1. BASIC STRUCTURE

The E.C.G. will consist of three 'labs': TV Productions, Audio Productions, and Audio-Visual Aids. A Manager will oversee the three labs to whom each lab's Producer-Director will report. The Manager is responsible to the Director of the A.D.A.'s Extension Division.

2. PURPOSE OF THE LABS

For use by the A.D.A., universities, colleges, farm organizations, agri-business, farm units and others to make, using the services of communications (not agricultural) experts, audio-visual, audio, and visual communications aids to extension.

Also to use the facilities and staff for training students and extension workers in the capabilities of communications hardware, software, and programing in agricultural and regional extension.

3. WHY NOT USE EXISTING UNIVERSITY OR GOVERNMENT OR ETV OR COMMERCIAL FACILITIES?

Because the job of conditioning tens of thousands of developing farm units in Alberta to the ramifications of change in agriculture requires full-time use of facilities and the services of the best communications people in Canada. This is why we have allowed for high salary levels in the following budget to attract the best people.

Communications people with whom we talked pointed out that there are many communications groups across Canada in public and private endeavour who are reasonably competent in use of hardware (cameras, recorders and the like) but have little or no background in the art of communicating. As one agricultural TV program producer put it, "the hardware is well advanced but we

have only begun to learn how to use it." An example is a good classroom lecturer not projecting at all well on TV.

For the awareness-sensitization-motivation-action-co-ordination job that must be done in Alberta in the next 10 years in agriculture, we want a three-way combination of inputs:

- some of the best people in Canada who want to develop their existing lead in communications theory and practice. They need not know agriculture. They need a challenge (regional communication throughout Alberta) and a suitable atmosphere to try their ideas (a non-partisan lab on a university campus in a major centre).
- high quality input of agricultural and regional development expertise for the communications people to utilize.
- access to the labs by all segments of the agricultural and regional development communities for programing experimentation under the direction of the communications experts.

Experimentation and training uses of the labs coupled with regular use by the A.D.A. for extension information services will probably keep the hardware, software and staff in full use.

4. CAPABILITY, HARDWARE, SOFTWARE, BUDGET

(a) TV Productions Lab

This lab includes all items of hardware and software necessary to make and produce television programs on videotape in the studio and also to re-edit from field material onto videotape including material from 16MM film and 35MM slides.

Hardware and Software Requirements

Capital Costs

2 Vidicon Cameras	\$ 12,255
12 portable $\frac{1}{2}$ " videotape recorders plus attachments	21,300
Studio Lighting	6,000
Monitors (Two 23", twelve 11", Waveform)	6,248
Camera Control Units and Telecine Camera	4,327
Video Switcher	7,500
Amplifiers	4,312
Telecine (for converting film to television)	9,116
2-1" videotape recorders	13,820
Test Equipment	6,700
Other Hardware	14,784
Installation cost	<u>6,500</u>
	<u>\$112,862</u>

Operating Costs

Videotapes ^{1/}	\$114,480
Depreciation (30% of \$112,862)	33,859
Rent on 2,025 sq. ft. @ \$8/sq.ft./year	16,200
Maintenance (5% of total investment)	5,643
Electricity @ \$430/month	5,160
Salaries - Producer-Director \$1,125/month	13,500
Assistant Producer	
Director \$830/month	9,960
Chief Technician \$1,125/month	13,500
Assistant Technician \$750/month	9,000
2 Camera men \$625/month	15,000
3 Script writers \$750/month	27,000
Artist \$625/month	7,500
2 Secretaries \$400/month	<u>9,600</u>
	<u>\$280,402</u>

Footnote

1/ We could have put part of the cost of purchase of these blank tapes into capital cost. Such part would represent continuing inventory. However all of the cost has been expensed to set out the 'toughest situation.'

(b) Audio Productions Lab

This lab will produce cartridges for release to commercial radio stations; cassettes and tape for use by universities and colleges, agri-business, A.D.A. and producers. Such programs and cassettes will be stored in a library and sent to anyone desiring a specific piece of information.

Hardware And Software Requirements

Capital Costs

Control Board	\$ 4,000
2 Turntables	1,600
2 Cartridge Recorders	1,600
1 Cartridge playback Unit	600
6 Cassette Recorders	1,200
3 Ampex reel tape Recorders	7,500
Patch Board	1,000
2 Electrovoice microphones	300
Monitor System	<u>500</u>
	<u>\$18,300</u>

Operating Costs

Cassettes, cartridges, tape	\$ 5,000
Depreciation (30% of \$18,300)	5,490
Rent on 1,000 sq. ft. @ \$8/sq. ft./year (includes utilities)	8,000
Maintenance @ \$75/month	900
Salaries: Producer-Director \$1,000/month	12,000
Operator \$750/month	9,000
Technician \$900/month	10,800
3 Script Writers \$750/month	27,000
Secretary \$400/month	<u>4,800</u>
	<u>\$82,990</u>

(c) Audio-Visual Aids Lab

This lab will produce slide/sound and film/sound packages for playing on portable sight/sound cartridge machines. The lab will also contain a full color industrial photo lab for producing photos for exhibits and demonstrations. It also will house a production crew for making 8MM and 16MM movies.

Hardware and Software Requirements

Capital Costs

6 DuKane film/sound Projectors	\$ 1,710
6 Kodak Carousel slide/sound Projectors	1,800
10 Leica Cameras	10,000
2 Kodak 8MM Camera and attachments	2,000
2 Bolex 16MM Camera and attachments	4,000
Light meters, lights, trypods, et cetera	10,000
Equipment for photo lab	<u>35,000</u>
	<u>\$64,510</u>

Operating Costs

Cassettes, film, materials for photo lab	\$ 20,000
Depreciation (30% of \$64,510)	19,353
Rent on 2,000 sq. ft. @ \$8/sq. ft./year	16,000
Maintenance (5% of total investment)	3,225
Salaries: Producer-Director \$1,000/month	12,000
photo lab - 2 Technicians	
	\$900/month 21,600
production crew - Photographer	
	\$700/month 8,400
- Script writer	
	\$750/month 9,000
- Producer	
	\$1,000/month 12,000
2 Secretaries \$400/month	<u>9,600</u>
	<u>\$131,178</u>

(d) Cost Summary for the Extension Communications Group

Hardware and Software Requirements

Capital Costs

TV Productions Lab	\$112,862
Audio Productions Lab	18,300
Audio-Visual Aids Lab	<u>64,510</u>
	<u>\$195,672</u>

Operating Costs

TV Productions Lab	\$280,402
Audio Productions Lab	82,990
Audio-Visual Aids Lab	131,178
Group Management:	
Salary: Manager	\$20,000
Secretary	4,800
Other support services	<u>5,200</u>
	<u>30,000</u>
	<u>\$524,570</u>

Appendix 6-2

OUTLINE OF THE

ALBERTA EXTENSION CENTRE

1. BASIC STRUCTURE

The Co-ordinator in charge of all of the centres will be located at the main centre at Olds. Associate Co-ordinators will head the sub-centres at Vermilion, Fairview, and Lethbridge. The term 'co-ordinator' is used because that is exactly what he does. With little staff he schedules courses, lecturers and adult education students into the centre.

2. PURPOSE OF THE CENTRES

The purpose of the main centre at Olds is to serve as the focal point for all agricultural and regional extension courses in the Province. It will complement the metropolitan-centredness of the Banff School. There will, of course, be evening courses held at locations apart from the centres for the sake of convenience. But live-in courses and seminars, which are the rule in metropolitan business, are becoming the preferred method of learning in the business of agriculture. Such courses and seminars will focus on the centres.

3. METHOD OF OPERATION

Most of the courses will be put on at Olds. Those worthy of 'going on the road' will 'play' the sub-centres with suitable adaptation to each region. The sub-centres may originate their own courses also. However for managerial farm units, attending commodity peer group courses at Olds has the advantage of interaction among Province-wide course participants.

Managerial farm unit courses will be charged for on at least a full-cost basis. For farm adjustment courses, the Province may wish to pay part of the cost.

But the centres are to be run on a revenue basis in just the same fashion as the Banff School.

Payments to lecturers on agricultural courses, excluding courses at Banff, have been too low. People putting together courses at present appear to forget two factors: you pay for experience as well as theory in the field of farm business; and, it requires two hours of preparation for every hour of lecture time. Fee per lecture-hour is misleading. In the following budget section we indicate a high level of fees to attract the best men in Alberta, in Canada, in North America, in the world.

4. BUDGET

A capital cost budget is not necessary. The facilities exist at all of the centre locations. The extension centres will rent classroom, dormitory and dining room facilities in much the same fashion as adult education programs on a university campus.

ANNUAL OPERATING COSTS

MAIN CENTRE AT OLDS (based on an average of 4 courses per month, 5 days per course, 50 students per course)

Administration

Salaries: Co-ordinator	\$15,000
Assistant	10,200
Secretary	<u>4,800</u>
	\$30,000

Operating Expense (travel, et cetera)	<u>20,000</u>	\$ 50,000
------------------------------------------	---------------	-----------

<u>Lecture Fees</u> (100 lecturers @ \$650 per week)	\$ 65,000
<u>Course Materials</u> (\$200/course approx.)	10,000
<u>Classroom Rental</u> (2,000 sq. ft. @ \$10/sq. ft./year)	20,000
<u>Accommodation Costs</u> (\$16.50 per day)	<u>200,000</u>
	<u>\$345,000</u>

EACH SUB-CENTRE AT VERMILION, FAIRVIEW, LETHBRIDGE
(based on an average of 2 courses per month, 5 days per
course, 30 students per course)

Administration

Salaries: Associate	
Co-ordinator	\$10,200
Secretary	<u>4,800</u>
	\$15,000

<u>Operating expense</u> (travel, et cetera)	<u>12,000</u>	\$ 27,000
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<u>Lecture Fees</u> (60 lecturers @ \$650 per week)	39,000
--------------------------------------------------------	--------

<u>Course Materials</u> (\$200 per course approx.)	5,000
-------------------------------------------------------	-------

<u>Classroom Rental</u> (1,000 sq. ft. @ \$10/sq. ft./year)	10,000
----------------------------------------------------------------	--------

<u>Accommodation Costs</u> (\$15 per day)	<u>54,000</u>
	<u>\$135,000</u>

SUMMARY OF ANNUAL OPERATING COSTS OF ALL CENTRES

Olds: main	\$345,000
Vermilion: sub-centre	135,000
Fairview: sub-centre	135,000
Lethbridge: sub-centre	<u>135,000</u>
	<u>\$750,000</u>

Chapter 7

FARM ORGANIZATION EXTENSION

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Chapter 7FARM ORGANIZATION EXTENSION

"The possible range (of extension activities for a general farm organization) is almost limitless from technical and practical instruction, through legal advice and help with administrative problems, to the provision of social and recreational opportunities."

- Watson Peat, President,
National Farmers' Union of Scotland,
Agricultural Institute Review 1967.

1. HISTORICAL PATTERN OF DEVELOPMENT AND EXTENSION

Farm organizations, by our definition, comprise farm unions and commodity service organizations. The latter excludes pools and co-operatives which we class as agri-business. This is not strictly correct as pools and co-operatives have both business and 'ideological solidarity' functions. Thus portions of this Chapter apply even though Chapter 8 covers them.

(a) Farm Unions

The history of farm organizations in Alberta has been one of amalgamation of factions in an effort to provide a unified voice in advising governments on farm policy, and to attempt to obtain more marketing and buying power. However, in amalgamation the organizations are forced to a more moderate course to satisfy their broader-based membership. This brings about formation of a new farm organization to represent more radical views. This cyclic phenomena has been repeating itself over the years.

In 1948 the United Farmers of Alberta (U.F.A.) and the Alberta Farmers' Union (A.F.U.) amalgamated to form the Farmers' Union of Alberta (F.U.A.). The F.U.A. gradually built service extension to members which included income tax, accounting and legal advice. The organization sparked interest among co-operatives in an educational wing which would train rural people for their civic responsibilities, give them knowledge in operations of locals and co-operatives, and extend courses in rural sociology. This new organization, Farmers' Union and Co-operative Development Association (F.U. & C.D.A.) was formed in 1959.

An increased membership in the F.U.A. in the early 1960's demanded more sophisticated services such as 'surface rights' groups to investigate oil company right-of-entry claims and government land expropriations. As a result the F.U.A. hired several agrologists and kept a land consultant on retainer. These people assisted members in negotiations. This land service filled a void that the A.D.A. extension service was unable to offer because Government was often directly involved or hindered by Acts governing expropriations.

In 1970 the F.U.A. and the Alberta Federation of Agriculture (A.F.A.) joined forces to form Unifarm. There are two kinds of membership in Unifarm: individual and organizational. With organizational membership comes the hope of a broader financial foundation. With the amalgamation comes a more moderate approach to problems. Consequently, the National Farmers' Union (N.F.U.) is organizing in Alberta as a competing organization. The cycle repeats itself again!

(b) Alberta Women's Institute (A.W.I.)

The A.W.I. has been a strong rural force in advocating women's rights and in extending home making and hygiene information to rural women. The Women's Institute Girls Clubs extend similar information to rural girls. The A.W.I. reached its peak several decades ago.

(c) Commodity Service Organizations

Most of the commodity service organizations have carried on some form of extension. In some cases it is simply the advancement of a philosophy, e.g., co-operatives promoting the 'Rochdale Principles' or the W.S.G.A. advancing a 'laissez-faire' philosophy. However, most have also attempted to extend information on commodity development trends and to sponsor short courses.

(i) Western Stock Growers' Association (W.S.G.A.) has co-sponsored the internationally recognized Cattlemen's Short Course at Banff for the past 5 years. This is a prototype of future courses for commodity peer groups. The "CANFAX" system for cattle market information to members was developed by W.S.G.A. The service is charged to opting members at cost. CANFAX is patterned after the American Cattlemen's Association, "CATTLEFAX." Opting members are requested to report bi-weekly inventories and details of all cattle transactions. These transactions become part of a weekly sheet of market information. Besides the CANFAX publication the W.S.G.A. sends out a regular "newsletter" with information pertinent to cattlemen. The organization now houses the office of the Alberta Beef Cattle Performance Association (A.B.C.P.A.). The A.B.C.P.A. compiles 'performance test' data for members in an effort to breed cattle of a more desirable genetic type.

(ii) Extension by breed associations can be exemplified by the Holstein-Friesian Association of Canada. Unlike other associations which use the government service for registration, the Holstein-Friesian Association does this function independently. Cattle of doubtful parentage, unless verified by blood test, are not registered. Fieldman service which is free includes checking registration, and even advising on breeding programs. The Association has used artificial insemination (A.I.) and Record of Performance (R.O.P.) information to improve the breed. The result is that the performance of every parent is known and listed as a selling feature of the animal. The Holstein-Friesian Association also sponsors field trips, short courses, shows and sales where breeders can 'talk shop.'

Most breed associations have a publication; offer shows, sales and field trips. Most have a fieldman but they do not do much 'farm unit to farm unit' extension. Traditionalism and insularity have held back progress of some breed associations regarding A.I. and R.O.P. The breed associations have sometimes lost sight of economical production and have held up a nostalgic lure of "will o' the wisp" show ring standards. These standards are often based on apparent physical characteristics which may have no relation to economical production. In terms of 'non-partisan' agricultural extension, the contribution of the breed associations has been minimal.

(iii) The Alberta Cattle Commission, formed in 1970, has as its objective the fostering of "development of the largest possible beef cattle industry in Alberta that is able to yield an adequate return" by maintaining competitive costs of production, improving marketing, increasing consumption, strengthening co-operation among cattlemen, and fostering collaboration throughout the beef industry. In our opinion, the Commission could be the forerunner of a "Cattle Industry Research and Extension Foundation" contracting for or handling its own projects in the old 'laissez-faire' tradition of W.S.G.A.

(iv) Western Hog Growers' Association (W.H.G.A.), formed in 1960 with a \$35 per year membership fee, is made up of specialized hog producers. It can be considered a 'peer group' in the swine industry. Its extension efforts are somewhat unique in that professional researchers and lecturers are not invited to meetings because it is felt they may stifle the laymen's discussions. However, feedback is obtained and questions are posed to researchers after meetings. This approach appears successful as evidenced by good communications between researchers and the Association.

(v) Farmers' Union and Co-operative Development Association

(F.U. & C.D.A.) was formed in 1959 by various farmer co-operatives, pools, and the F.U.A. It is funded by these organizations and others such as A.R.D.A. The F.U. & C.D.A. received funding from A.R.D.A. for "Study Sessions in Rural Sociology and Rural Economics." The courses have helped make rural communities aware of problems and have motivated some study groups to further analyze their local problems. Such courses have been the first real attempt by a farm organization to do broad-base and not 'institutional' extension, i.e., information for the general good rather than perpetuation of an ideology.

Some of the objectives of the F.U. & C.D.A. are: to plan and conduct programs to ensure continual development of rural leaders; to promote development of co-operatives; to assist rural groups with planning and programs to meet their needs; to promote understanding and co-operation between farm and co-operative organizations; to develop and administer the Goldeye Lake Camp for young people, leadership courses and seminars. The F.U. & C.D.A. over the past 10 years has made progress towards meeting these objectives.

(vi) Alberta Potato Commission, formed in 1966, was unique in having 3 growers, 2 wholesalers and 1 processor on its directorate. No other producer board or commission in Alberta previously had direct representation by wholesalers and processors, although the Vegetable Commission is now similarly patterned.

The Commission does considerable product promotion, instituting devices such as prizes and contests to gain

publicity. Many of its programs are informative to consumers, e.g., the recipes booklet "112 Ways to Cook Potatoes" at a price of 50¢ has received substantial sales and use as proven by consumer survey. "Facts About Alberta Potatoes" is a Commission publication for seed growers. The Commission has assisted in completion of the A.D.A.'s publication "Potato Production in Alberta."

The Commission has aided in stabilizing prices and increasing sales in the potato industry. Price stabilization has largely been brought about by a short weekly 'pricing newsletter.' Future plans include a registered trademark and 'product quality education' for growers.

2. OBJECTIVES - PAST AND PRESENT

In order to develop our thoughts in regard to farm organization extension in future, we have had to explore new organizational frameworks. Thus in this section we discuss both general objectives and extension objectives as a base for later discussion. In addition, up until now, farm organizations' roles in extension have been limited.

(a) Types of Objectives(i) Solidarity or Consensus of Widely-Held Opinion

'Rural' people have been somewhat more individualistic than most 'urban' people. This is true because of a selection factor among people that have sought farming as an occupation. The opportunity to be individualistic has been associated with the occupation and therefore has attracted this type of individual.

This individuality has caused wide differences of opinion which has made the job of directing farm organizations extremely difficult. If the objectives of a farm organization differ from the aims of an individual, then the farm unit operator will usually go against the action of the organization. This factor is not so disruptive where it is possible to have membership discipline, e.g., breed associations and marketing boards.

(ii) Awareness

The rural sociology courses offered by the F.U. & C.D.A. in co-operation with the U.ofA. have sparked some research in certain communities by local citizens who have taken the courses. They have led to a greater understanding of the economic and social problems of regional Alberta.

(iii) Leadership Training

Leadership training courses such as "Leadership Techniques" and "Rural Leadership" at the Banff School

of Fine Arts have been promoted by the U.ofA., pools, co-operatives and unions. Public speaking, discussion, and group leadership have been taught.

The F.U. & C.D.A. has offered conferences on leadership training in the community.

(iv) Youth Development

Outstanding accomplishments are the Junior Wing of the U.F.A.-F.U.A. Such 'Junior Wings' have been an effective training ground for farm organization personnel for the 'local' and permanent staff levels. The Junior Wing of the F.U.A. was responsible for forming the Goldeye Lake Camp now run by the F.U. & C.D.A. The Alberta Wheat Pool has offered university scholarships to youth. Other organizations have contributed to 4-H programs through awards and scholarships.

(b) Progress Towards Objectives

Solidarity is much easier to achieve within commodity groups, than it is within a general farm organization, because of less conflict of interest among members. Most producers agree that unified effort is necessary in some areas. Some want only unified effort in approaches to government while others want unified effort in marketing. Despite a general agreement, most producer decisions are made on an individual basis with little thought as to the effect of the decision on the industry as a whole. Generally, there is little 'solidarity' in farm organizations, certainly not in the sense of urban industrial unionism.

Awareness in light of farm adjustment, urban-rural interlock and other disturbing subjects, has not been palatable to farm organizations. The lone efforts of the F.U. & C.D.A. are commendable in this regard. Leadership and youth development objectives have been fairly well met.

(c) Measuring Effectiveness in Meeting Objectives(i) Growth in Membership

W.S.G.A. members get preference in attending the Cattlemen's Short Course at Banff. The W.H.G.A. may attract membership for the advantage of an 'operators' forum.' Generally, we found that farm unit operators agree that they would not stay in a pool, co-operative or union if the immediate economic advantage disappeared, e.g., purchasing supplies at lower prices.

(ii) Increased Funding

Increased membership fees would be an accurate measure of acceptance and appreciation of extension and general efforts of farm organizations. To-date, such increase has been resisted. Check-offs and their size could also serve as a measure. But most check-offs are compulsory.

(iii) New Sources of Funding

It is questionable whether grants by agri-business members (co-operatives and pools) measure a farm organization's achievements with any degree of accuracy. The promotion of short courses, accounting, or consulting, at full-cost pricing is another potential source of funds for farm organizations. The acceptance and use of such realistically priced services would reflect effectiveness.

(iv) Recognition

Governments would like greater unanimity of opinion among farm unit operators reflected by one farm organization. Governments at present must recognize all bonafide farm organizations and cannot show favouritism in formulation of agricultural policy.

Members of farm organizations show recognition by standing for office and donating time to such service. However, in many cases only older farm unit operators have the time for such activities. Infusion of

youthful innovativeness to complement the wisdom of age is a continuing problem.

Farm organizations are generally not recognized by agri-business as bargaining agents. Agri-business prefers to deal with individual farm units.

(v) Improved Image

Farm organization image is determined partly by its relationship to the news media and partly by farm unit reaction to its efforts. Any activity usually modifies image. Thus much 'sound and fury' has been evident. A 'grass roots' unbiased survey is the only accurate measure of image change. Most organizations are unwilling to undertake this because of 'political' (vested interest) reasons, and lack of funding.

Attendance at conventions is some measure of the prestige of an organization, but is affected by the agenda and convenience of location. Trends in attendance are significant, and are a reasonable measure of image.

(vi) 'Quantity of Living' Change

Farm organizations claim effectiveness in the political arena when economic circumstances change for the better. Such claims can neither be proven nor disproven. However the claims are pertinent to enthusiasm for funding farm organizations and thereby indirectly connected to the limits to farm organization extension.

Peer operators have formed new organizations out of frustration with some existing commodity organizations. Though small in numbers, these operators are active and knowledgeable. Meetings are held to discuss new research and its practical application. This approach improves the economic position of members only.

Because of their better starting economic position, the only effective method to measure their improved position would be a survey showing speed of improvement when compared to other operators.

(vii) 'Quality of Living' Change

Most farm organizations concern themselves much more with quantity of living than with quality of living. However, F.U. & C.D.A., A.W.I., and the F.W.U.A. have been active in this field. Surveys of attitude would be an accurate measure of success but the techniques, training, and conditioning for such surveys have not been instituted into the Alberta extension process as yet. Some initial attempts were made by Rogers and Buckmire, formerly of the U.ofA. Department of Economics and Rural Sociology, who studied quality of living, and attitudes in regional Alberta.

3. MEETING WANTS OF RURAL PEOPLE REGARDING EXTENSION FROM FARM ORGANIZATIONS

Wants of top and regular commercial farm units for fairly sophisticated information, research and extension have not been satisfied by farm organizations. W.S.G.A. and W.H.G.A. have realized the importance of commodity peer group interaction and so courses and meetings now take place. But the advisory services in accounting, tax, and expropriation offered by the F.U.A. (now Unifarm) are too rudimentary for managerial farm units. W.S.G.A. through CANFAX and the Alberta Potato Growers Association through its newsletter are attempting to improve market information services. If the top and regular commercial farm units are ahead of all these attempts in degree of sophistication, good for them! We want such farm units to continue to use their own initiative to stay out in front.

For 'emerging' developing farm units, the need is for coaching in data search and other techniques used by the top and regular commercial farm units. No farm organization is geared up for such an education task at the present time.

The problems of the 'adjusting out' farm units have not been recognized by farm organizations because it is politically unpopular to talk about rationalization. Unifarm staff occasionally counsel individual farm units on the advisability of staying in agriculture but this service is not widely publicized and little used. Yet, as we show later, a great service could be rendered by farm organizations to 'adjusting-out' and 'emerging' farm units.

The semi-commercial farm units have wants similar to top and regular commercial units. Unifarm does not even admit semi-commercial units as full members. However most commodity service organizations do not use a 'full time farming' membership criterion. Part-time operators may require more husbandry and

other general farm practice advice than full-time operators. Many farm organizations and members do not take part-time operators seriously even if large-scale. Therefore peer group dialogue is cut off.

Country residents often do not join farm organizations, because of the small-scale nature of their operation (hobby or part-time), or the type of individual (static non-commercial). Thus the wants of this group in regard to farm organizations are virtually unknown.

4. OVERLAP

David Kirk, Canadian Federation of Agriculture (C.F.A.) Secretary, wrote in the Agricultural Institute "Review", January, 1967,

". . . in the present state of farm organization in Canada there is no problem - or should be none - of Federations being strengthened at the expense of constituent organizations. We have so much to do, and so much to learn, that the work being done needs to be expanded at all levels. And so does the staff. I know of no situation in Canada where a constituent member of a Federation would, in expanding and strengthening the Federation, find its own responsibilities reduced or made less meaningful, or find its own staff resources in surplus position."

Our study team found no areas of overlap of extension in farm organizations. As Mr. Kirk points out, they are all underfinanced and therefore understaffed and therefore underprogrammed.

5. GOALS TO BE ACHIEVED IN THE FUTURE(a) Awareness

Farm organizations have been loathe to admit that farm rationalization is desirable or even taking place. It is a problem of 'politics.' Executives find it impossible to publicly state that some of their members, because of severe economic conditions, must find other occupations at least part-time if not full-time. They seem to see such a statement as an admission of past failure on the part of the organization and of pessimism for success in the future. Therefore Unifarm has not assisted in 'awareness' and has left its members to make the decision to leave the farm as a last resort. The F.U. & C.D.A. has been more realistic in its rural sociology courses. Hence it has aroused some interest in facing the problems. The commodity organizations have made no mark in this field, except in cases where marketing boards have developed and set quotas. Suddenly the small producer begins to wonder if he will be "out of the ball game."

Awareness is the first step in a chain of sensitization - motivation - action - co-ordination. All farm organizations have a responsibility to realistically assess change to promote awareness to cushion the 'shock' of change. They can use their media, meetings, and face-to-face contact to carry out conditioning in 'awareness.' Our study team also suggests some new audio-visual techniques through use of the Extension Communications Group. However, while change will inevitably come, farm organizations will play no role if the 'political hang-up' is not resolved.

(b) Sensitization

Some farmers are unaware of how their products are used. They are insulated from consumer reaction. They need to be

sensitive to the demands of what is their market. They need to be sensitive to social, economic and political realities such as a declining agricultural population, greater capital requirements, greater controls by government, and stiffer competition.

Farm organizations may not agree with these trends but it is unrealistic not to recognize them. Farm organizations can help sensitize operators to understand and express opinions on these trends. Thus Unifarm is moving in the right direction by getting operator reaction to the Task Force Report. The F.U. & C.D.A. should continue to expand its rural sociology courses.

Commodity service organizations should sensitize farmers to market conditions, processors' demands and problems, and to interpret consumer reaction and tastes. The Alberta Potato Growers Association has progressed in sensitizing its members to economic facts.

Breed associations should acquaint their members with the economic 'facts of life' concerning the end point in the chain, i.e., the consumers. They should be the leaders in developing innovative extension to demonstrate the economic viability of their product instead of fighting changes, perpetuating myths, and setting obstacles to progressive thought in order to maintain the status quo.

The Doscher Report showed that most people who belonged to co-operatives and marketing groups, joined expecting immediate economic returns, e.g., purchase discounts or patronage dividends. Also, there may be 'power in unity' and for the small membership fee they do not want to 'miss a bet.' Farm organizations can demonstrate their value constantly to members by action on projects significant enough to really involve the members -- to really gain government, university, and agri-business recognition -- to really gain 'news coverage.'

These procedures will help sensitize the producer to the organization. This is the first step necessary in order to obtain financing for completion of the job. A project as significant as farm unit development, emerging or adjusting-out, qualifies.

(c) Motivation

Farm organizations through locals, delegates and field-men have a 'grass roots' work force that can assist in farm unit motivation in regard to improvement in either 'quantity' or 'quality' of living. Age and time availability are formidable obstacles for use of such a work force. So is funding. If funding were solved, the age and time problems just might disappear. Our study team sees the need for a lay field force as a motivational aid for many agricultural programs necessary in Alberta over the next 10 years.

(d) Action

After awareness and sensitization and motivation: action must take place. The present structures of some farm organizations virtually preclude any action, or any action taken fast enough to be effective. We suggest some new structures later on so that farm organizations have a 'fighting chance' to take action in future extension in Alberta.

(e) Co-ordination

There is a need for farm organizations to serve as co-ordinators for regional extension effort among governments, agri-business, universities and colleges. Farm organizations have the rudimentary structure to co-ordinate at the local level through non-professional staff. For example, in the past, perhaps they could have helped to co-ordinate work done in communities by H.R.D.A., Lands and Forests, A.D.A., D.S.D., Municipal Affairs, Manpower, and various educational institutions. However co-ordination cannot be truly effective until the proliferation of adjustment/retraining programs is consolidated.

6. NEW ORGANIZATIONAL STRUCTURES

Farm organizations, to undertake effective extension, must have the respect of farm unit operators. Respect will be evidenced by a willingness to fund the organizations' activities and a willingness to listen to the organizations' field workers explain change and new programs to deal with it. No general farm organization, to-date, has been able to win such respect because the striving has been for "a single voice" on all issues. In Charts 7-2 through 7-4, we suggest that the answer may lie not in a general farm organization (G.F.O.) but in a structure whereby Unifarm may be a co-ordinator of an association of commodity organizations. Thus the aim of "a single voice" will be achieved because that voice will say different things for different people.

(a) Farm Organization Membership Structure: 1970 (Chart 7-1)

The impossibility of co-ordination and the lack of communication lines among competing organizations is apparent. We find commodity organizations 'going it alone,' and Unifarm and the N.F.U. trying to represent all farmers as having one common goal. We agree with the Task Force Report that there are too many farm organizations, but reject their idea that changing these structures is impossible even though it will be difficult. We agree with Mr. David Kirk, C.F.A. Secretary, that a 'federated' approach is necessary.

(b) Farm Organization Membership Structure: 1975, 1980

(Chart 7-2)

The present membership structure of Unifarm comprises two 'wings': Direct Membership and Federation (see Chart 7-1). Unifarm should drop its Direct Membership Wing as a representative voice of all producers and concentrate on co-ordinating commodity organizations to represent the commercial producer. The Direct Membership Wing would be

replaced by a Small Farm Units Section of static non-commercial, hobby and part-time farmers. This proposed change is based on the fact that policy and programs beneficial to commercial producers are non-beneficial or even detrimental to small producers. The individual farm unit operator would freely choose whether to join the Small Farm Unit Section or one of the commodity commissions.

Any organization trying to represent managerial farm unit opinion that is not broken down into commodity sections cannot get significant decisions out of a convention. The problem of which commodity organization should represent the commodity in Unifarm must be answered. Commodity organizations which have a commission or board will be represented by same. Those that do not have commissions or boards will be helped by producers and the A.D.A. to form one.

Chart 7-2 shows our model of a farm organization structure of a 'federation' type which allows commodity commissions to operate autonomously yet utilizes Unifarm as a vehicle for co-ordination.

There is little point in a purchasing co-operative being a member of Unifarm. The members of such a co-operative represent a variety of commodity groups.

Financing

Some commodity commissions have financed research, promotion and public relations work through the check-off system. Unfortunately Unifarm, a logical co-ordinating force, is under-financed. Direct membership to finance commodity organizations should be discontinued as it is too inefficient. The commodity check-off system should be expanded to include all commodities. (It is in the interest of managerial farm units to have their commodity organizations well-financed,

well-staffed, and well-run.) This check-off should be used to finance national commodity organizations and Unifarm as a provincial co-ordinating body. The amount of the check-off funds going to Unifarm would be determined by percent of the value of product sold by each commodity. Individual commodity commissions would determine the amount of check-off required to finance research, promotion and services such as Unifarm activities demanded by its members.

If a commodity producer wishes his Unifarm check-off to go to another organization such as the N.F.U., he must substantiate to his commission his contributions once a year. To be eligible to receive transfer of check-off funds, an organization must register with the A.D.A. and represent a specified percent of the producer-production factor, calculated as follows:

$$\text{Percentage of producers opting for the organization} = \frac{\text{No. of producers opting for the organization} \times \text{their production}}{\text{No. of producers in the Province} \times \text{their production}}$$

A similar situation applies to competing commodity organizations. If some producers do not want their check-off funds to go to the commodity commission but instead to a commodity service organization, the above formula would apply.

The Small Farm Units Section of Unifarm would be financed by a nominal membership fee and the balance from the general treasury of Unifarm.

(c) Representative Commodity Commission Structure: 1975, 1980
(Chart 7-3)

Members of commodity commissions (or boards) today are appointed by government. We have restructured a democratically elected commodity commission. This introduces

a constituency base (Unifarm Districts) and involves producers in an election process to enhance communications.

Commission members will be elected by the 'Commission Advisory Board' (C.A.B.). In turn members of this board would be elected by producers from Unifarm Districts based on the following formula.

$$\text{No. on C.A.B.} = \frac{\text{No. on C.A.B. in Province}}{2} \times \frac{\text{District production}}{\text{Provincial production}} + \frac{\text{No. on C.A.B. in Province}}{2} \times \frac{\text{No. of District producers}}{\text{No. of Provincial producers}}$$

Members of the C.A.B. are charged with liaison among commodity organization 'locals', individual producers and the commodity commission.

A commodity commission would have a 'Promotion, Research and Extension Wing' and a 'Marketing Wing.' The former is necessary because producer-processor-wholesaler-retailer-consumer information exchange is not possible within day-to-day product marketing due to competitive considerations. Yet all of these 'links in the chain' must dialogue in terms of

- promoting the commodity to the public;
- advising Unifarm and others on the direction and practicality of research and extension;
- endeavouring to promote communication among the 'links' to better understand each other's problems.

The Marketing Wing necessarily must have a strong producer bias. It would administer a marketing board if one exists. The commodity commission would appoint sales negotiators to this Wing. This Wing could act as an information clearing-house for market information for producers.

The commodity commission itself would represent producers on Unifarm. It would administer check-off collection and

distribution. If some commodity service organizations were performing worthwhile extension or other services, they could be recipients of the distribution of funds by the commission.

(d) Farm Organization Extension: 1975, 1980 (Chart 7-4)

Unifarm or the commodity commissions can disseminate information to managerial farm units and semi-commercial farm units. (We assume the latter will be recognized because of their large-scale and businesslike approach.) Such sources would be chosen by individual producers if they were fast and offered cogent analysis producers did not wish to do. Unifarm could operate an information clearinghouse for pertinent technical and business information for commodity groups not wishing to do so themselves. The Unifarm Information Clearinghouse (U.I.C.), as we call it, could contract with the Alberta Data Bank (A.D.B.) for a base supply of information on an 'annual bulk data retainer' fee basis. Analysis could be done internally or contracted to outside research institutions or consulting firms. Or commodity commissions may decide to access the A.D.B. directly and do their own analysis or contract out analysis for members. Or members may wish to do the whole job themselves. The scope is wide for farm organizations to demonstrate their meaningfulness.

The emerging farm units will need to be exposed to a process of awareness, sensitization, and motivation to go onto the A.D.A.'s M.F.D. program. Such a process, detailed by the A.D.A., could be put out for contract under a 'Request for Proposals' (R.F.P.). Unifarm, with its locals, could be in a strong position to bid for such a contract. To complement its lay field force it would need expertise from universities, private consultants, and communications professionals in the Extension Communications Group (E.C.G.).

The adjusting out farm units need a similar process of awareness-sensitization-motivation but also 'action' and 'co-ordination' to complete the process. Counselling by sub-professionals and lay workers, "people they know," is critical as has been proven by U.S. experience and in the Edson and Slave Lake regions of Alberta. An F.U. & C.D.A. 'R.F.P.' contract to aid the Resource Development Program is possible. Unifarm locals, F.W.U.A., A.W.I. could also be involved on sub-contract. (The F.U. & C.D.A. is chosen for R.D.P. assistance because the F.U. & C.D.A. tends to have an apolitical nature.) Of course, professional expertise and training will be the complementary input.

The country residents need an awareness of their changing (probably worsening) position in terms of viable economic agriculture. Through the Small Farm Unit Section, Unifarm is probably the only organization that would be interested in supplying information to further this awareness. The F.U. & C.D.A. and F.W.U.A. can assist in giving country residents an awareness of regional change. At some state static non-commercial farm units may desire to enter the M.F.D., R.D.P. or some other assistance program.

Despite the suggested foregoing patterns of information dissemination and counselling, individual farm units or the Small Farm Unit Section or the commodity commissions have the option to access the Extension Triumvirate themselves. In addition, each has a responsibility to make known to researchers and extension workers the need for practical information, whether for commercial agriculture or for social change programs.

We believe that the changed structure of farm organizations which we suggest, or some modification of it, is essential if farm organizations are to significantly contribute to extension in Alberta in the next 10 years. They have a latent potential to be tapped in cushioning the 'shock' of agricultural and social change.

QUICK REVIEW OF ESSENTIAL IDEAS IN CHAPTER 7RATIONALE

The existing structure of farm organizations in Alberta, be they unions or commodity organizations, does not lend itself to effective participation in extension. If a farm union could be restructured in a manner to improve sources of funding, encompass divergent farm unit and commodity group views, and utilize untapped potential in 'locals', it could be a major force in Alberta extension in the next 10 years.

There is much meaningful extension that can be done on a paying basis by farm organizations in disseminating information to managerial farm units and encouraging emerging and adjusting-out farm units onto M.F.D. and R.D. programs.

CONCLUSIONS

1. Unifarm should be restructured to encompass membership of commodity commissions and a Small Farm Unit Section (Chart 7-2).
2. Funding would be mainly by commodity commission check-off, bidding on extension project contracts, and sale of information services to commodity commissions or commodity service organizations.
3. Each commodity commission would not be appointed but would be elected by a Commission Advisory Board comprising commodity producers. Commodity commissions would advise Unifarm in regard to research, extension and other matters. Each commodity commission would have a Marketing Wing and a Promotion, Research and Extension Wing (Chart 7-3).
4. A Unifarm Information Clearinghouse would extend information and analysis on a paying basis to commodity organizations serving managerial and semi-commercial farm units if all so desired.

5. Unifarm could handle the awareness - sensitization - motivation process of the M.F.D. program for emerging farm units under paid contract with the A.D.A. The 'locals' would supply a lay field force complemented by professional inputs (Chart 7-4).
6. The F.U. & C.D.A. could handle the foregoing process for the adjusting out farm units under paid contract. Lay counselling under professional guidance would extend into action and co-ordination phases of the process (Chart 7-4).

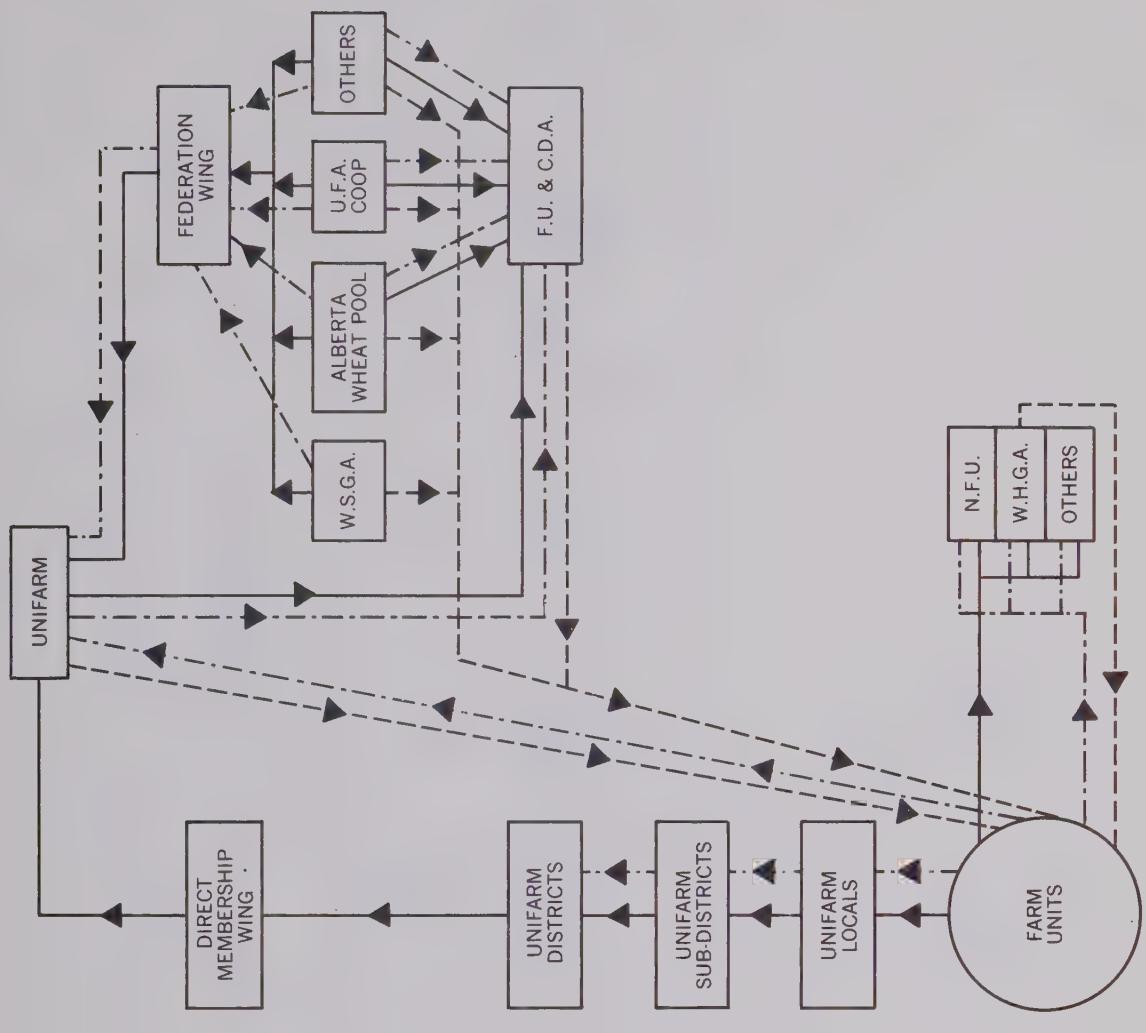
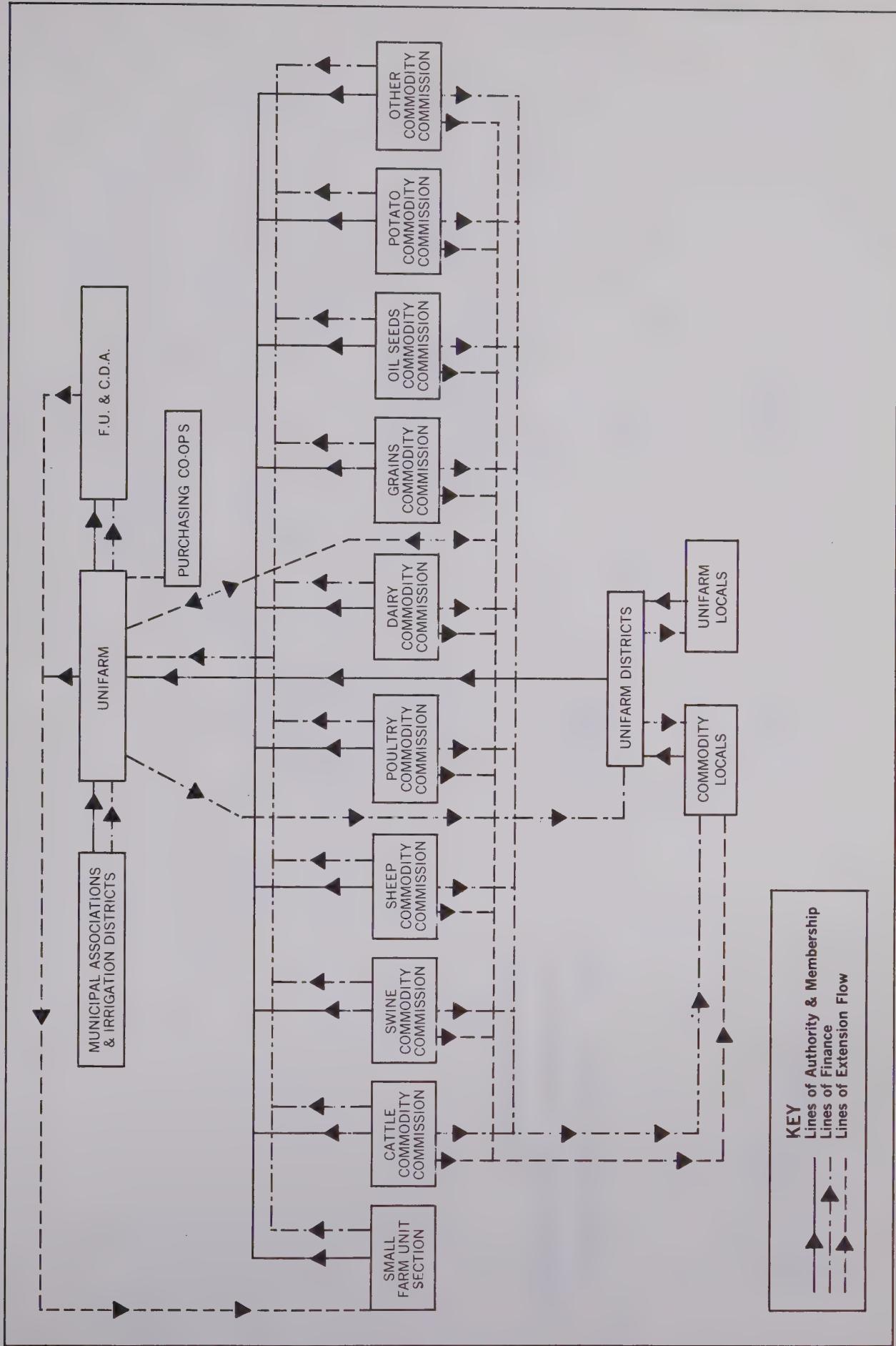


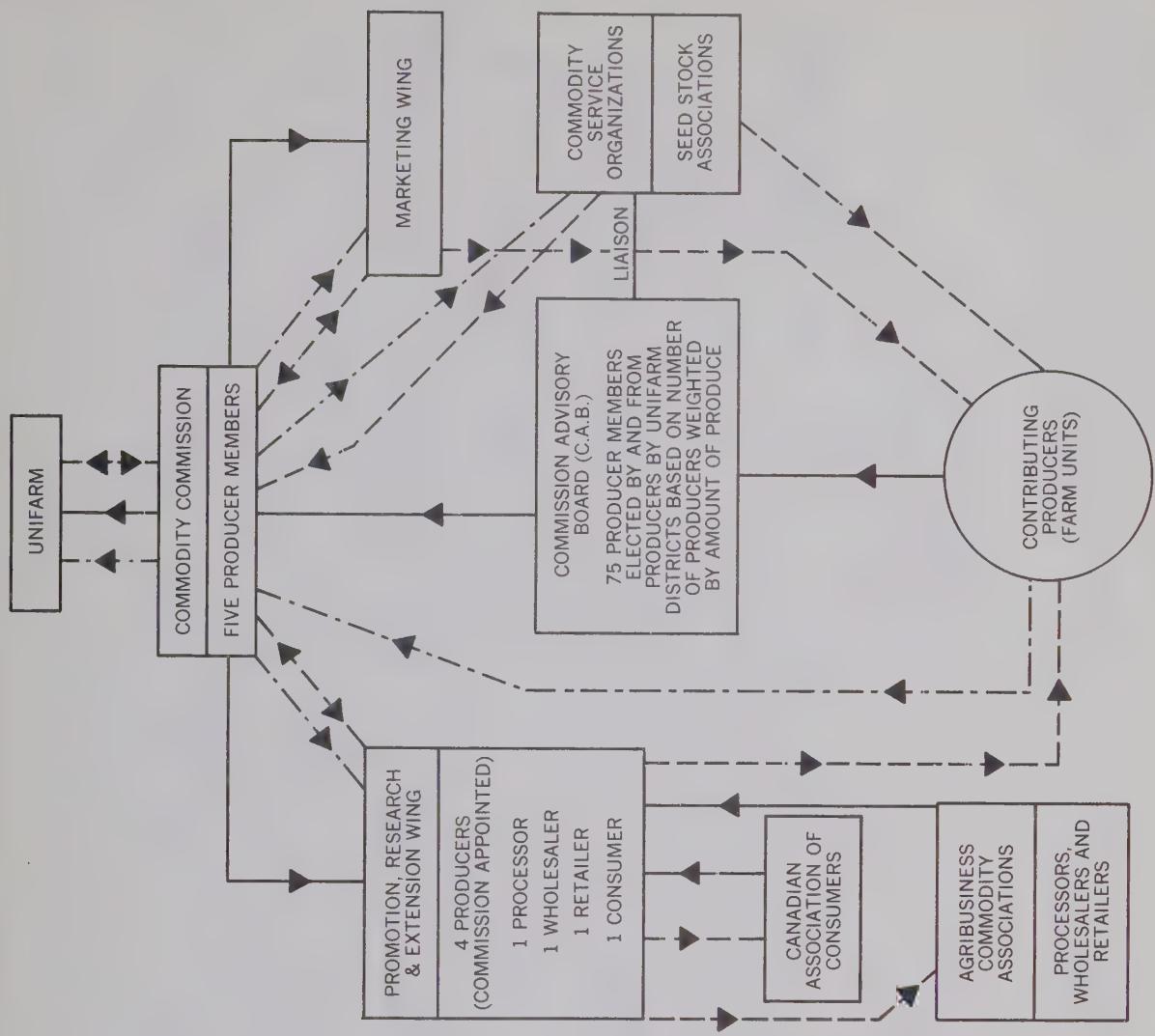
CHART 7-1
**Farm Organization
 Membership Structure
 1970**

KEY
 Lines of Authority & Membership
 Lines of Finance
 Lines of Extension Flow

CHART 7-2

Farm Organization Membership Structure 1975, 1980

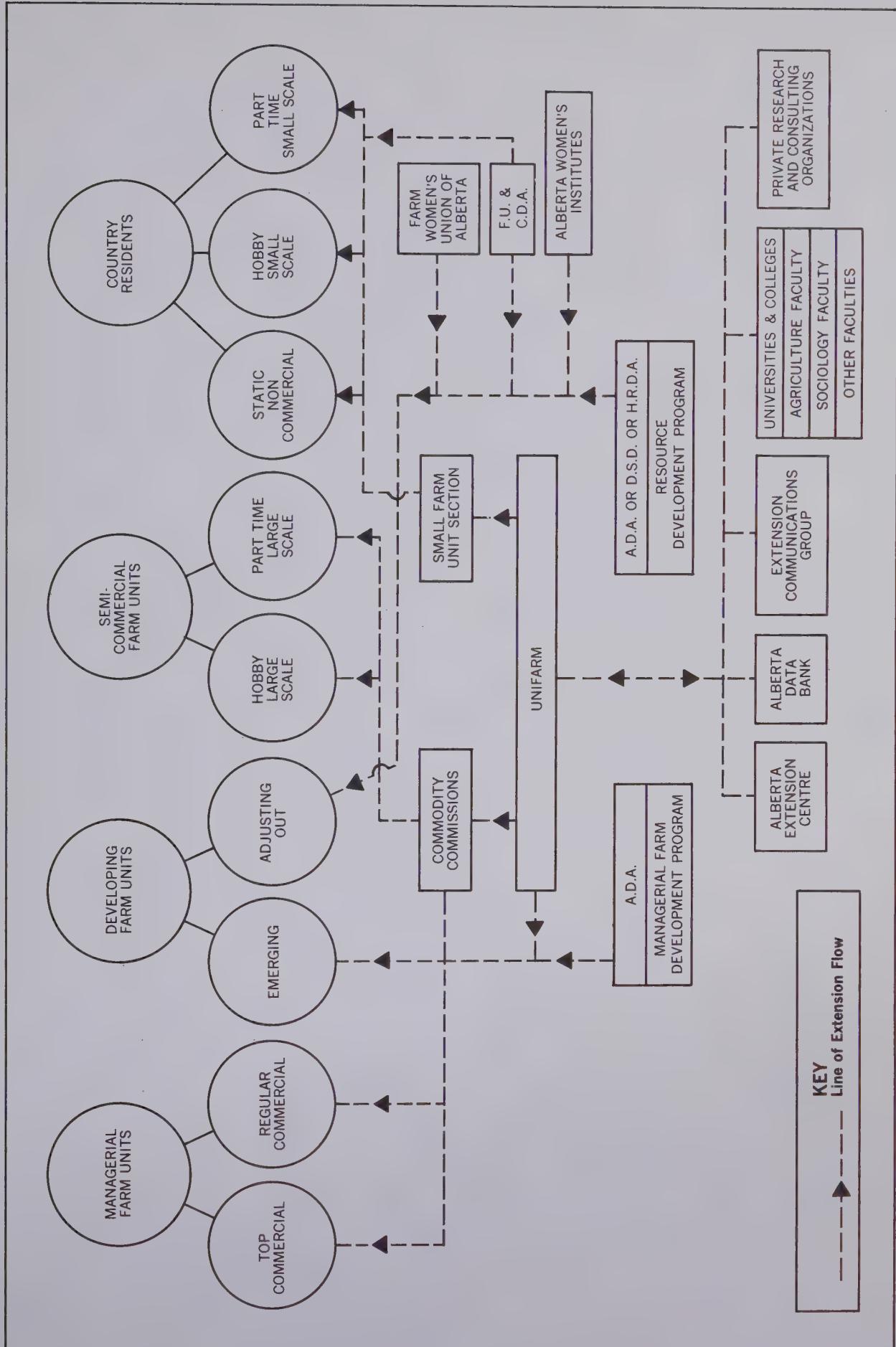




**Representative
Commodity Commission
Structure 1975, 1980**

CHART 7.4

Farm Organization Extension 1975, 1980.



Chapter 8

AGRI-BUSINESS EXTENSION

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Chapter 8AGRI-BUSINESS EXTENSION

"If I have gained anything from listening to the many predictions for the seventies, it is that a real degree of co-operation between competing segments of the economy will be necessary for optimum efficiency to develop in the agricultural industry of Canada. . . . this may sound like heresy to a staunch entrepreneur,"

- J.M. Appleton,
Maple Leaf Mills Ltd.
Chairman
Board of Governors
Agricultural Economics
Research Council of Canada
1970

Agri-business has one objective: to sell a product at a profit. Sales programs which seek to further this objective often impart information to the customer. This 'extension' of information and service is one means by which the profit objective is realized.

Our study divides sales approaches into three categories:

- (1) pure sales and promotion where little or no information is extended;
- (2) short-term sales extension where information must be extended as to the most profitable use of the product; and,
- (3) long-term sales extension where information is extended in the hope of maintaining a viable agricultural industry and continuing market outlets.

Before beginning a discussion of agri-business in the Alberta extension picture, we must deal with what is called the 'credibility gap.' This is a feeling that information is unreliable because the source is biased. In the past, it has been applied most frequently to agri-business. In our interviews with farm unit operators, very few felt that it applies

today. Further, bias pervades all forms of extension. In fact a 'money making' bias pervades all extension. Universities extend information partly to establish good public relations which encourages a flow of research funds. Governments extend information to maintain a viable economy and consequent tax flow so services can be provided.

1. HISTORICAL AND PRESENT EXTENSION

The development of agri-business in the Province of Alberta has paralleled closely the growth of the farming and ranching industries. The degree of sophistication in products or services offered was usually above that of the general farming population, but almost always behind that of the innovators. However, as the number of people actually working the land has decreased, their level of education and sophistication has risen. The result is that most firms in the agri-business industry have been forced to upgrade their programs and their personnel.

(a) The Animal Feed Industry

The animal feed industry has employed degree graduates in agriculture for over 25 years. A high standard of information extension has been ensured by the 'repeat sales' aspect of the industry and the high degree of competition.

(b) The Banks

The Canadian banking system did not follow the lead of the U.S. in hiring agrologists or utilizing agricultural consulting firms. Only now does the Royal Bank of Canada and the Canadian Imperial Bank of Commerce have agrologists who provide some farm management extension services to clients. The balance of their time is spent reviewing loans to agricultural enterprise and in 'public relations' work.

(c) The Farm Equipment Companies

Films have been the best long-term sales extension effort of farm equipment companies, e.g., Ford's "Agriculture

in the Year 2000"; John Deere's "Farming Frontiers"; and New Holland's "Careers in Agriculture." Other efforts, such as equipment and materials loaned to agricultural colleges and technical institutes are, at best, short-term extension. John Deere's "Furrow" is probably the best print material extension effort. Field extension is best exemplified in Alberta by Ford's alerting farm operators to the potential for corn crops in the Taber area.

(d) The Fertilizer Companies

Cominco was one of the first companies in Western Canada to engage in agricultural extension (1929). The sales, and therefore extension approaches of all of the fertilizer firms are similar to those of the feed companies in that sales are repetitive. Extension programs have taken the form of demonstration plots, short courses, publications, and symposiums.

(e) The Processing and Marketing Organizations

Food processors engage in extension in the form of intensive, practical, up-to-date production management assistance to farm units which contract crops in such areas as vegetables and sugar beets. Fieldmen from these processors extend information to ensure quality and quantity control in the processors' interests as well as the farm units.¹ This close extension interrelationship between processor and farm unit could be a microcosm of an entire extension structure, despite differences between intensive and extensive agriculture. The exciting aspect is that both processor and farm unit realize their common interest in producing a uniform, quality product that meets a realistic assessment of market demand.

Meat processor/beef producer extension relationships are virtually negligible. Rationalization in the poultry business makes information exchange relatively easier among commodity peers. The same is starting to hold true for hogs.

(f) The Grain Trade

The grain trade instituted some of the earliest agribusiness extension programs on the Prairies. Searle Grain Co. (1930), the Alberta Wheat Pool (1933), the North West Line Elevators Association (1940), the Malting Barley Institute (1950) and the National Grain Co. (1944) have all engaged in agricultural extension for some time beginning with the dates shown.

We found farm unit operators often referring favourably to a print extension effort of the United Grain Growers (U.G.G.). This is known as "The Grain Grower" and is a farm business digest catalogue patterned on the Iowa Agdex library classification system. Emphasis to date has been on periodic information releases in the production technology sections of the system. However despite this narrowness, the U.G.G. anticipated two recent entrants into the information catalogue field by some years: the Canada Department of Agriculture with its CANADEX; and the Alberta Department of Agriculture with its "Information Retrieval System." The latter two also use the Iowa Agdex library classification system which was first available in 1959. The latter two systems are not available to farm units at present; only to extension services.

(g) The Pharmaceutical and Farm Chemical Companies

Pharmaceutical companies sell their products through druggists and Doctors of Veterinary Medicine (D.V.M.). Thus, any accompanying extension has been carried on with university trained personnel. The chemical companies distribute products through elevator agents and other nonprofessional personnel. Extension of information has been carried out by these individuals but now more expertise is being introduced through field days for agents and farm unit operators.

(h) The Utility Companies

Extension by utility companies in Alberta is not nearly as advanced as in Ontario where Ontario Hydro has become known as an expert in farm building and ventilation design for specialized farm operations. But Calgary Power has had an agricultural information officer for several years. That company's long-term sales extension has taken the form of field trips organized along commodity lines, directing customers to sources of agricultural information, and recently the publication of production brochures such as one on heating and ventilation of hog facilities. "Farm Light & Power" carries general agricultural information.

(i) Special Services(i) Livestock Commission Agents

Livestock Commission agents extend limited advice on market information, most of which cannot be considered extension.

(ii) Marketing Boards

Commodity marketing boards have been formed for such products as broilers, turkeys, eggs and fowl, vegetables, and hogs. No extension programs have 'surfaced' due to the recent inception of the boards.

(iii) Marketing Co-operatives

The Alberta Wheat Pool has largely confined its extension activities to the publication of a weekly agricultural news sheet, the maintenance of a field staff of eight public relations representatives who work closely with government extension staff whenever possible, participation in rural leadership programs, and the distribution of some technical leaflets and

bulletins. The Pool assisted our extension study by making its Delegate Advisory Committee structure available for interview.

Purchase co-operatives have engaged in extension essentially to managerial farm unit operators on building design and other practical topics.

Co-operatives have been active supporters of the F.U. & C.D.A.

(iv) Consultants

The serious entry of Alberta-based agricultural consulting firms into Alberta extension is only about three years old. Some of these firms are rapidly developing and will have a substantial impact in the future. Clientele to-date have been top managerial farm units, governments and industry.

(j) Agri-business Attempts at 'Pure' Extension

Our study interviews indicate that agri-business sales and therefore extension programs, are directed towards the managerial farm unit where most of their sales are now and will be made in the future. Several agri-business firms have instituted highly sophisticated courses for their own personnel and top commercial producers with little 'hard sell' evident.

Many agri-business extension programs take the form of demonstrations. These are in keeping with the emphasis noted by our study team on practicality. Feed companies conduct their own feeding trials. Nearly all fertilizer and chemical companies have their own experiments. And machinery companies supply equipment for field days.

Agri-business firms often engage in co-ordinated extension programs. Clinics and meetings have been jointly held

by different firms where they often have to 'compete' for the best extension approach. In these, the 'pure sales and promotion' aspect is often very small.

One innovation which has potential for future extension co-ordination is the farm service centre. Agri-businesses, government, and private consulting firms located in a mall in a 'growth' centre would allow 'one-stop shopping' for farm unit inputs, general shopping, and extension. This idea is being put forth by National Grain Co. Ltd.

The Goldeye Lake Camp, the Western Co-operative College in Saskatoon and the Farmers' Union and Co-operative Development Association are other examples of agri-business co-operation in a straight education albeit ideological context.

2. SHORT-TERM PROFIT OR LONG-TERM GAIN?

From our interviews, all agri-businesses stressed the profit motive. A lesser number distinguished short-term profit from long-term growth of their business tied to long-term growth of a healthy agriculture. A handful saw a responsibility for improving agricultural and general society which was considerably removed from short- or long-term financial gain.

All agri-businessmen to whom we talked saw the prime target market for the next 10 years and after as the managerial farm unit. The sophistication of this unit will require considerable servicing and perhaps an indication of an agri-business firm's commitment to 'long-term sales extension' to keep the agricultural industry viable. The big question in the agri-businessman's mind is:

"How much service and extension can be built into the price of the product and how much can be charged for separately?"

Canadian Industries Limited has boldly approached the question with its contemplated offering in Canada of Imperial Chemical Industries' linear program. The program is free to buyers of three years supply of fertilizer; charged to non-buyers.

On a straight economic basis a longer term view is being forced upon agri-business. As the farm supply company or the food processor sees his investment in plant increasing, he also sees the hazards in widely fluctuating gross farm income reflected in reduced sales or continuity of supply. Fluctuations in quality of supply worries the agri-businessman as he sees the consumer nationally or internationally becoming more conscious of this factor and ordering by exacting specification. Suddenly agri-business has a stake in a production sector which is quickly responsive to the accelerating changes in world-wide consumer tastes.

Excluding contract crop processors, that sector of agri-business that buys from producers has been ineffective in informing producers as to the 'total picture' facing the commodity. In fact, the maze of marketing boards, brokers, processors, wholesalers and retailers lacks a communication link that ultimately transmits information from consumer to producer. This is most evident in the red meat trade. The grain trade currently is endeavouring to establish a 'link.'

In that sector of agri-business which sells to producers the most enlightened view our study team encountered was put forth by a manufacturer who "sells innovation, not a product." If this manufacturer can keep in the forefront of agriculture by introducing innovative ideas to producers, the company's product will sell at a profit, brand name being mentioned or not.

On the subject of responsibility to society, the majority view at this time is that sociological and other problems of farm units or agricultural regions are a concern of government not agri-business. A lone few said that agri-business has more responsibility than a few scholarships or grants. These few, here in Alberta, are hiring Indians and Metis and are offering jobs to adjusting-out farm unit operators as part of government retraining programs.

3. AGRI-BUSINESS' FUTURE EXTENSION ROLE

Agri-business extension in the future will still have to further the profit objectives of individual firms. With narrowing profit margins and increased competition from at home and abroad facing both producers and agri-business, perhaps all free services and any extension 'frills' that have been developed to-date will be dropped. On the other hand, if Canadian agricultural marketing, transportation and distribution is streamlined; if Canadian agricultural production is properly rationalized; then perhaps the commercial producer can make enough money to pay for agri-business service and extension. In our opinion, the gamble by agri-business during the next 10 years of adjustment in Canadian agriculture is on the latter course of action. But firms shifting emphasis to long-term sales extension and even demonstrating a responsibility to society may have to trade some short-term profit for long-term gain.

Now to specific areas where agri-business can improve its long-term position and at the same time help the Alberta extension effort in the next 10 years.

(a) Assist the A.D.A.'s M.F.D. Program

This program is designed to help emerging farm units achieve managerial farm unit status. Such status means future 'target' customers for agri-business. Courses on the M.F.D. program need the experience of agri-business manpower for lecturing, demonstrations and general guidance. Agri-business people could be loaned or charged out to the M.F.D. course program.

(b) Information Input to the A.D.B.

Agri-business firms will not be enthusiastic about contributing, to the Alberta Data Bank, information which decreases their competitive position. But they can contribute non-critical research and marketing information which will help producers and others gain a broader picture.

(c) Expertise Contribution to the E.C.G.

Many people in agri-business are experts in communication in electronic or face-to-face terms. They may not be bound up in theory but they can articulate a practical approach. Such people loaned or charged out to the Extension Communications Group (E.C.G.) can make sizeable contributions.

(d) Defending the Image of Agriculture

Pollution and conservation are two issues which will continue to occupy much public interest in the next 10 years. Agri-business must contribute manpower and ideas to forums arguing issues or formulating regulations if it and producers are not to be cast in the role of 'chemical-using villains.'

(e) Responsibility to Society

Agri-business has been cast by some as the root cause of all producer ills. Aside from this being illogical, the emotional aspect of such a statement reflects despair and frustration of a segment of farm units in which agri-business is not interested from a profit point of view. Militancy in the next 10 years will not be an illusion. Agri-business has a stake in retraining farm unit operators and otherwise 'cushioning' the 'shock' of change.

(f) Funding Industry Research and Extension Foundations

Our talks with agri-businessmen reveal a reluctance to do general agricultural research or extension -- "it only helps our competition who don't do any of this." But if funds went into research and extension foundations, on a commodity or industry-wide basis, then contracts could be let for non-partisan research on extension which could assist all sectors of a commodity structure, all firms in an industry.

Contribution from the private sector to research and development of the agricultural industry is over 50 per cent in the U.S. and less than 10 per cent in Canada (Dr. E. Mercier, Special Counsellor to the Quebec Cabinet in January, 1970).

4. AGRI-BUSINESS ORGANIZATION STRUCTURES

The total Alberta extension picture can be considerably improved if some means can be found to co-ordinate agri-business extension efforts and to integrate these efforts with those of other extension agencies. Agri-business has much to offer Alberta agriculture through extension activities. The task is to achieve co-ordination and integration without stifling innovation or threatening competitive positions.

M. M. Roytenberg of Steinberg's Ltd. in a January 1970 address to the Agricultural Economics Research Council conference on "This Business of Agriculture" probes toward some means for co-ordination:

"What is missing is an agency which weds the market knowledge of business, the productive capacity of agriculture, and the legislative power and social capital of government. We need an agency with a mandate that cuts across lines of traditional government departmental responsibilities so it can operate within an agri-business framework in provincial and federal jurisdictions.

. . . a development agency which is active rather than passive. . . . which could challenge business to supply the inputs of knowledge, skill and capital, in collaboration with producer and government bodies, . . . which translates new knowledge and experience, innovations in practice and procedure, break-throughs in seed or stock, . . . into application in Canadian agriculture. . . ."

Such an "agency" is not possible. Our Regional Extension and Advisory Research Council approaches it. However within agri-business itself there is need for a new structure if firms and associations are to contribute to Alberta extension in the ways just set out in the previous pages.

(a) Agri-business Market Information and Extension:
1970 (Chart 8-1)

Chart 8-1 shows the extension, market information and product flows between agri-business and farm units. Extension information flows from dealers in the 'input' (farm

supply) sector of agri-business to farm units quite effectively. Extension information flows between the 'output' (commodity purchase) sector of agri-business and farm units are almost non-existent. Only processors dialogue with farm units to any extent and this is ineffective except for contract crop processors. Farm unit dialogue with other groups (wholesalers, retailers) in the 'output' sector of agri-business has been attempted through farm organizations. It has not been effective.

Market information flows between farm units and dealers are effective. But this information is passed on through distributors to manufacturers ineffectively. Market information flows down from consumers to retailers, to wholesalers, to processors, to market agents and then to farm units. These market information flows are all somewhat ineffective. The dialogue between consumers and farm units is very indirect if it exists at all. The grading and regulation provisions of government provide a further impediment to effective communication between farm units and the initial buyer of the output.

The sales aspect of farm unit/agri-business relationships is very efficient. Sales of farm unit inputs and farm unit outputs proceed without impediment.

(b) Agri-business Extension 1975, 1980 (Chart 8-2)

Chart 8-2 shows how agri-business extension efforts can be directed toward farm units in 1975 and 1980. It is a sequel to Chart 8-1. The market information and product flow lines are omitted but they conform to the 1970 situation. Individual firm extension efforts can be integrated into the total Alberta extension picture through contributions to the A.D.A.'s M.F.D. program, the Extension Communications Group, the Alberta Data Bank and the Alberta Extension Centre. The agri-business community would also

receive the benefits of extension outputs from these and other extension sources.

The sector of agri-business selling inputs to farm units will then take these extension outputs and conduct its own sales and extension programs. These will be directed towards the managerial, emerging and semi-commercial farm units. Sales and extension to adjusting out farm units and country residents will also occur. But they will occur upon the initiative of the farm units. Hence, the opposite direction of the arrows.

Extension of the agri-business sector buying outputs from farm units is not presently effective. Agri-business Commodity Associations comprising processors, wholesalers and retailers will increase the effectiveness of extension communication efforts within the 'output' sector and to farm units. The Agri-business Commodity Associations will also provide a two-way extension interaction with the Promotion, Research and Extension Wings of the various commodity commissions. (See Chart 7-3). Extension information will then flow from these Wings to farm units (producers) informing them of consumer, retailer, wholesaler, processor and market agent wants and opinions. This extension information flow will also be primarily directed toward the managerial, emerging, and semi-commercial farm units. It is these farm units which will produce the bulk of the output.

(c) Agri-business Representation on Extension Co-ordinating Bodies: 1975, 1980 (Chart 8-3)

Chart 8-3 shows a self-governing structure to enable the agri-business community to co-ordinate individual extension programs and integrate them into the total Alberta extension picture. All firms in the agri-business community are represented by Agri-business Commodity Associations. Some firms, such as utilities, will have to form associations.

Others already having associations will have to convert from a 'passive' to an 'active' posture.

Each Agri-business Commodity Association will elect a representative to the Agri-business Extension Co-ordinating Agency. Besides co-ordinating agri-business extension, this Agency will also select delegates to the Regional Extension and Research Advisory Council (see Chart 5-3) which integrates all Alberta extension programs.

The Agri-business Commodity Associations representing purchasers of farm 'output' will elect representatives to the Promotion, Research and Extension Wings of the various commodity commissions (see Chart 7-3).

The 'self-governing' aspect of this structure is important. Agri-business representatives to the Agri-business Extension Co-ordinating Agency and the Promotion, Research and Extension Wings of the commodity commissions should be 'elected' by the Agri-business Commodity Associations and thereby also be responsible to them. Any 'appointee' system would lessen the direct representation and also lessen the co-ordination and integration of agri-business extension programs.

(d) Extension by the Individual Agri-business Firm:
1975, 1980 (Chart 8-4)

Chart 8-4 shows how a representative individual agri-business firm can carry out an extension program in 1975 and 1980. There are three sources of information available to the individual firm: government agencies and educational institutions; private research and consulting organizations; and internal extension expertise in the firm.

The Extension Triumvirate, (which is the Alberta Data Bank, the Alberta Extension Centre and the Extension Communications Group), the A.D.A., the C.D.A. and Universities and Colleges will all provide extension and research

information which the individual firm may use. Private research and consulting organizations will provide marketing, business management and production science information inputs which the individual firm may use in its extension program. An agri-business firm does not have to carry the costly overhead of an extension and research department of a size necessary to be worthwhile.

Outside information sources can be contracted by the individual firm through its Extension and Research Liaison Group. This group may also provide some internal information input.

To finance the use of the 'external' information sources the individual firm has two basic choices. It can fund research and extension programs itself. Or the firm can contribute to a Research and Extension Foundation which is funded by all firms in the particular Agri-business Commodity Association. It would fund projects of mutual benefit to all members of the Association.

5. FUTURE AGRI-BUSINESS EXTENSION SUBJECT MATTER

The new structures proposed for agri-business extension will not be instituted because the agri-business community is seized with an overpowering spirit of co-operation. Our study team feels that agri-business will come to realize the benefits of interaction, co-ordination and integration of extension programs. The proposed new structures will do this. The question then remains. What subject matter will agri-business extension concentrate upon?

Agri-business extension will give increased emphasis to marketing especially the 'input' sector. This will not only involve the marketing of agri-business products, but it will also involve knowledge of the marketing situation faced by agri-business customers. This will occur because the results of the marketing situations faced by farm units will greatly effect farm unit demand for agri-business products.

Product research, development and promotion will continue to be emphasized by agri-business. New products have to be promoted to buyers. But sales-oriented advertising will have to be backed up by sales extension programs in the face of increased buyer sophistication and demands. The information inputs for these extension efforts can be obtained from the firm's own extension and research department. Or a firm can contract for extension and research information to be provided from the two sources external to the firm, i.e., public and private.

All extension, including agri-business extension, will become more communications-oriented. The Extension Triumvirate, consisting of the Alberta Data Bank, the Alberta Extension Centre and the Extension Communications group, will present the opportunity to improve the communications efforts of agri-business extension.

QUICK REVIEW OF ESSENTIAL IDEAS IN CHAPTER 8RATIONALE

By and large, agri-business has undertaken only short-term sales extension in the past. However, companies selling a product requiring frequent repeat orders and companies buying on a contract basis have found that their level of service extension must be high. They must be interested in long-term sales extension to farm units, which involves a concern for the maintainence of a viable agricultural industry.

Agri-business has clearly stated that its target customer group is commercial agriculture. Such farm units are demanding more extension and less hard sell. They are not concerned about bias which pervades all extension. They are concerned about practicality and accessibility of information. Further, during the next 10 years of agricultural rationalization, a considerable number of farm units can be helped to 'emerge' into the 'managerial' category.

If agri-business can co-ordinate extension efforts within and among commodity groups, it can contribute a sizeable extension input in latent expertise alone. It can assist not in spite of, but rather because of its profit motivation -- long-term profit made possible by its customers showing profits.

CONCLUSION

1. Existing Agri-business Commodity Associations would become active operating bodies and new associations must be formed.
2. Each commodity would have a vertically- and horizontally-integrated Association (Chart 8-3).
3. These Associations would elect representatives to an Agri-business Extension Co-ordinating Agency (Chart 8-3). This

Agency would elect representatives to the Regional Extension and Research Advisory Council which integrates all Alberta extension programs. Further this Agency would coordinate extension among agri-business in regard to agri-business foundation-sponsored projects or agri-business contributions to government or private extension efforts.

4. Agri-business Commodity Associations would also elect representatives to the Promotion, Research and Extension Wings of Commodity Commissions in Unifarm. Producer views could then be integrated with agri-business in a forum for two-way communication.
5. When agri-business co-ordinates its efforts, it can
 - assist the A.D.A.'s Managerial Farm Development (M.F.D.) program by supplying lecturing manpower;
 - supply non-competitive information to the Alberta Data Bank (A.D.B.);
 - contribute communications expertise to the Extension Communications Group (E.C.G.);
 - defend the image of agriculture on pollution and conservation issues;
 - help to retrain adjusting-out farm unit operators under the Resource Development Program (R.D.P.); and,
 - fund Agri-Business Commodity Association Research and Extension Foundations which can contract for non-partisan, non-competitive information collection, analysis and dissemination.
6. An individual agri-business firm could form an internal Extension and Research Liaison Group. This Group would contract with public agencies and institutions such as the Extension Triumvirate or private research and consulting organizations, or do internal work on gathering, analyzing and disseminating information as part of the firm's extension program. A firm could fund such work directly or contribute to an Agri-business Commodity Association Research and Extension Foundation which in turn would let contracts (Chart 8-4).

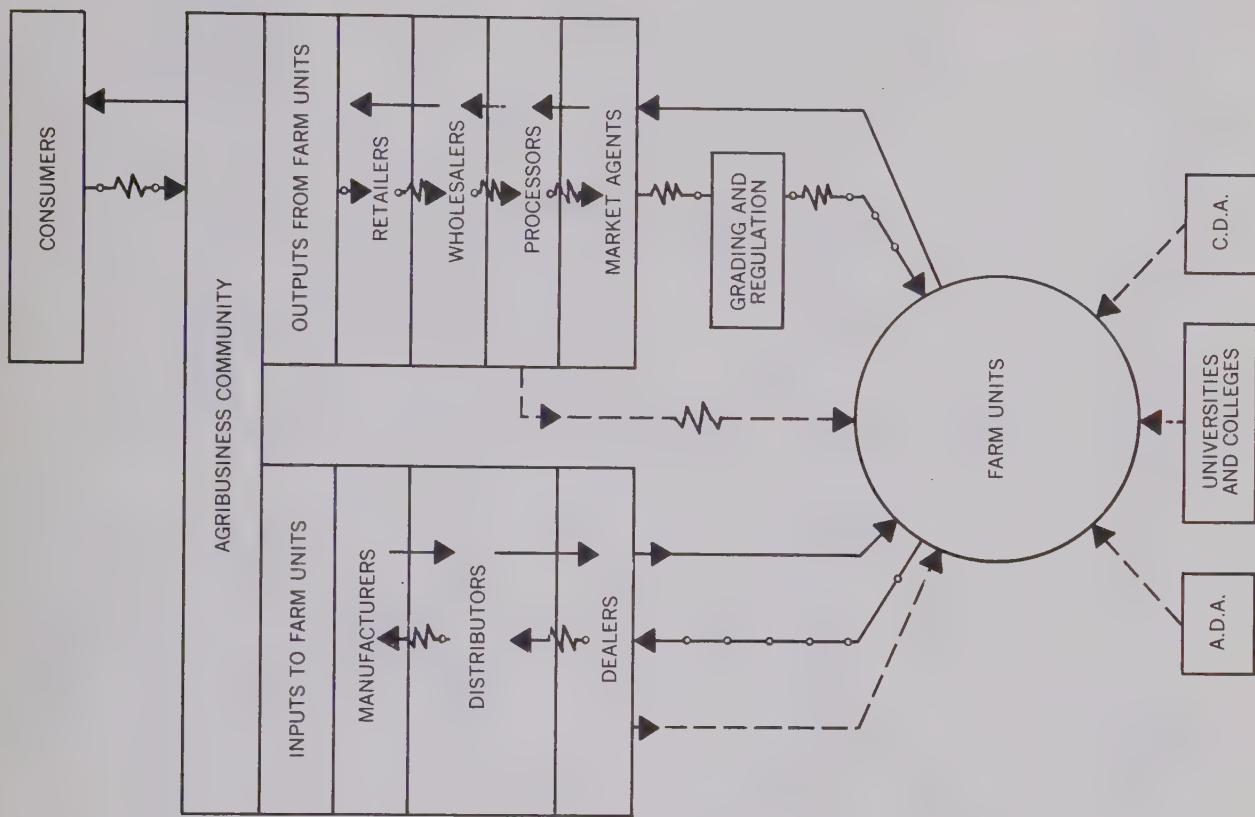
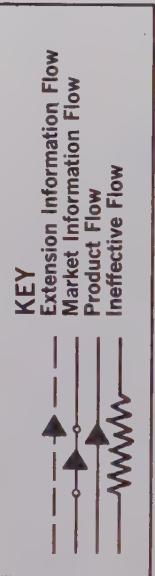


CHART 8-1
Agribusiness
Market Information
and Extension 1970



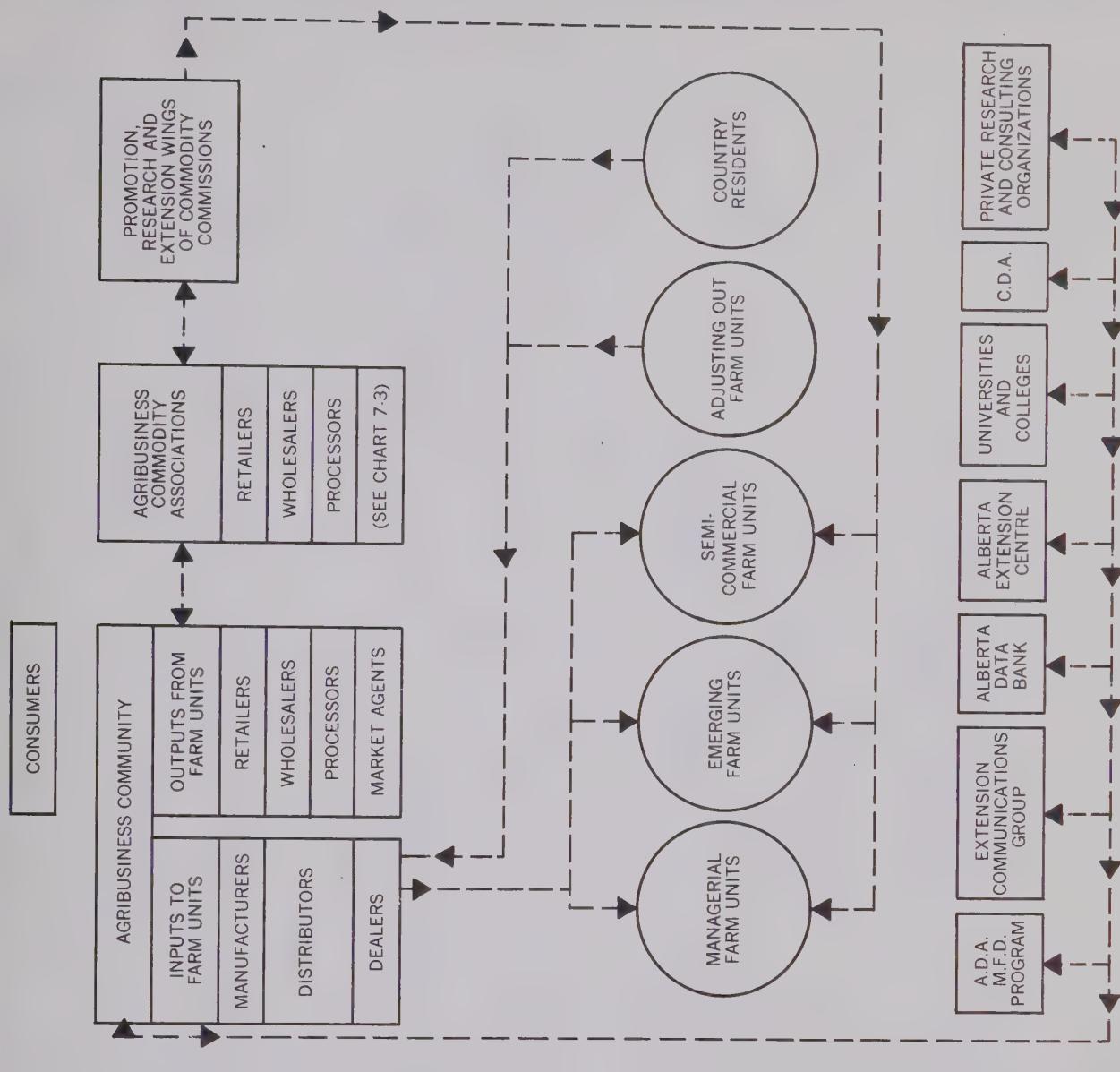
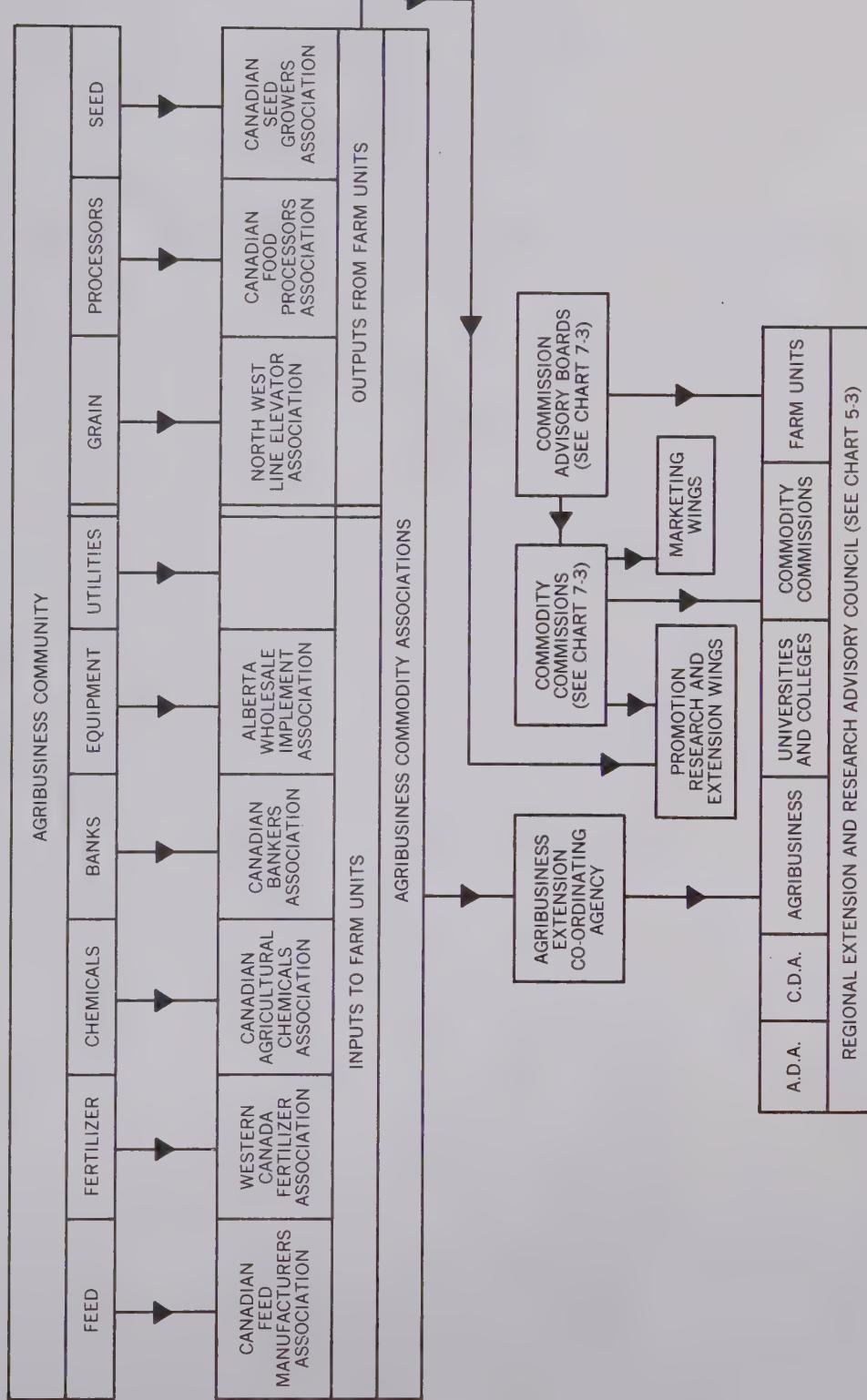


CHART 8-2
Agribusiness Extension:
1975, 1980

Self-governing Structure of

Agribusiness Representation to Extension Co-ordinating Bodies: 1975, 1980

CHART 8-3



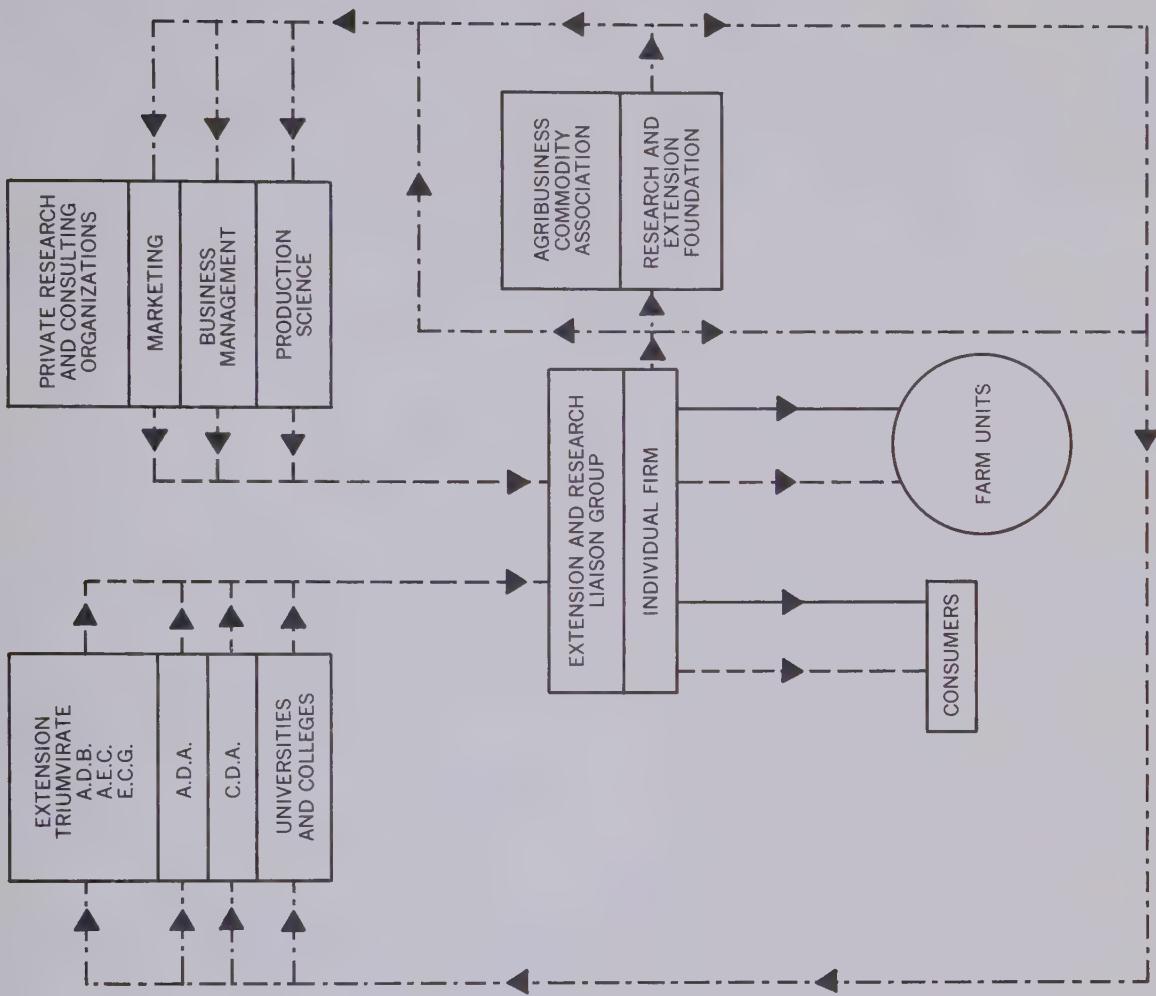


CHART 8-4
Representative Individual Agribusiness Firm Extension Structure: 1975, 1980.



Chapter 9

THE CANADA DEPARTMENT OF AGRICULTURE

"Under the new system an addressing machine run by one man is able to accomplish as much as twelve industrious penmen."

- Canada Department of Agriculture,
Annual Report, 1911.

1. SIGNIFICANT EVENTS IN C.D.A. AGRICULTURAL EXTENSION HISTORY

The B.N.A. Act makes no direct mention of extension but it has been generally accepted that extension is an area of provincial responsibility. However, this has not precluded the Canada Department of Agriculture (C.D.A.) from engaging in extension activities. It is often a matter of the C.D.A. supplying information which is further extended by provincial extension services.

In Canada, as in the U.S., research personnel were placed in the field in the early years of agricultural development to investigate the problems of production. Often being the only available experts, they became part-time extension workers.

The Experimental Farm Stations Act was passed in 1886. This Act instructed Stations to prepare reports for publication "for the purpose of making the results of work done immediately useful." The Lethbridge Experimental Farm was started in 1906 with irrigation a special interest. In 1907 the Lacombe Experimental Station was founded. Its initial work was of a demonstration nature then turned to development of balanced farming.

The C.D.A. library was begun in 1910. Its facilities and also those of field libraries are available to university and provincial government personnel.

Publications have been issued almost since the inception of the C.D.A. In 1911, all publishing activities were consolidated into a Publications Branch.

Other federal programs which have had direct or indirect extension effects are those under the Prairie Farm Rehabilitation Act (P.F.R.A.) of 1935 (soil conservation, irrigation, and pasture management) and the Agricultural Rehabilitation and Development Act (A.R.D.A.) of 1962 (land and human resource development on a federal-provincial cost-sharing basis). Canada Manpower through NewStart provided job retraining and placement opportunities for adjusting-out farm units. 'Manpower' is currently promoting agricultural upgrading programs for Alberta farm units in co-operation with the Departments of Education and Agriculture. Some credit-associated extension is provided by federal loan agencies such as the Farm Credit Corporation (F.C.C.), the Veterans' Land Administration (V.L.A.) and the Industrial Development Bank (I.D.B.).

2. THE PRESENT EXTENSION ACTIVITIES OF THE C.D.A.

The majority of C.D.A. activity, including extension, is oriented toward servicing producing units. Consumer information and gardening information are examples of C.D.A. extension directed toward the family unit and the community.

The C.D.A.'s 'pure' extension activities emanate from the Information Division and the Economics Branch. Regulatory extension comes mainly from the Production and Marketing Branches. And the Research Branch accounts for extension that can be termed 'information wholesaling.'

The Information Division is the principal C.D.A. extension agency. Information is disseminated to agricultural extension specialists, researchers and consumers through various 'sections.' The News Section extends information to the public on all phases of C.D.A. activity through its Press Unit, Radio Unit, and Visuals (television, exhibits and films) Unit. The Radio Unit's telephone audio tape system is utilized by radio stations across Canada to pick up pre-recorded agricultural news items for a flat rate telephone toll charge.

The Publications Section extends written information to agriculturists, extension workers, agri-business and the rural and urban public regarding C.D.A. policy, new legislation and assistance programs which require public explanation. Research publications are produced for the scientific community. The Section's extension activities go beyond the dissemination of information only and into some interpretation. The Editing and Distribution Units handle the preparation and distribution of published information. The Special Projects Unit handles publications such as CANADEX, an agricultural information catalogue updated by continuing free releases to provincial extension services only.

The responsibilities of the Economics Branch include "contributing to a better understanding of . . . problems and proposed solutions by governments, farmers, agri-business and the general public." This is, in fact, an extension function. A new position created in the Branch, that of 'Chief of Economic Communications', indicates an increased extension role for the Branch. The Farm Management Division provides the major extension activity directed toward farm units. The single most important program is the Canadian Farm Management Data System (CANFARM).

Extension also takes place through various sections of the Production and Marketing Administration. The Markets Information Section publishes daily, weekly, monthly and annual commodity marketings reports. The Food Advisory Services are charged with providing consumers with "information that will stimulate agricultural food sales and enable wise spending decisions" and information concerning C.D.A. programs. Quality instructional publications are sent upon request only and most are charged for as Food Advisory Services feel that consumers value them more highly on this basis.

The Merchandising Section of the Livestock Division provides assistance to fairs and exhibitions. The decline of agricultural fairs and exhibitions casts doubt on their extension value.

The extension function of the Research Branch is to act as a 'wholesaler' of information to extension agencies. Branch research establishments in Alberta are located at Lethbridge, Lacombe, Beaverlodge, Vauxhall, Manyberries, and Vegreville. They do their information 'wholesaling' at two-day meetings with District Agriculturists and Regional and Divisional Specialists. Research project lists also go out to these same people.

Direct contacts between researchers and farm unit operators in the Lethbridge Research Station area indicate that a considerable amount of unofficial extension takes place. Special field days are also held for specific commodity groups.

3. THE FUTURE EXTENSION ROLE OF THE C.D.A.

Our study has not been charged with making recommendations to the C.D.A. However, the extension posture of the C.D.A. will be important to Alberta in the future. The C.D.A. will continue to perform its information 'wholesaling' to extension agencies. But hopefully there will also be provision for increased farm unit operator contact with C.D.A. researchers, and personnel in the Economics Branch.

The C.D.A. can play its most beneficial extension role by providing a broad national and international information input. This could be done through establishment of a national data bank accessible by anyone.

A "Canada Data Bank" would be of great benefit in collecting and disseminating such information to provincial data banks. With unlimited data input sources and unlimited access by farm unit operators, agri-business and extension services, a vital extension need could be fulfilled by a national system of data banks. Such a system would replace many "industrious penmen."

Chapter 10

COST AND TIMING OF RECOMMENDATIONS

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CHARTS 10-1 (A), (B), (C)

Chapter 10COST AND TIMING OF RECOMMENDATIONS1. COST(a) Existing Annual Operating Cost of A.D.A. Extension

Set out below is our restructuring of a four-year historical summary of the operating costs of extension services offered by the A.D.A. plus an estimate for the current budget year ending in March 1971. The four-year historical period begins with the start of A.D.A. divisionalization and regionalization. All figures are from Public Accounts and from the Government's official Estimates.

A.D.A. EXTENSION ANNUAL OPERATING COST SUMMARY

1966-1971

(All Figures Are \$000's and Rounded)

1966-	1967-	1968-	1969-	1970-
67	68	69	70	71
(A	c	t	1)	(Estimated)

EXTENSION & COLLEGES DIVISION

<u>Extension Branch</u> ^{1/} (Headquarters)	203	244	276	343	331
---------------------------------------------------------	-----	-----	-----	-----	-----

District Agriculturists

(D.A.'s)					
Salaries and Wages	756	796	890	1,009	1,090
Travel Expense	96	98	110	115	116
Telephone, Telegraph	10	16	16	20	17
Other	38	46	40	42	49
<u>Total</u>	900	956	1,056	1,186	1,272

Women's Extension Work^{1/}

(D.H.E.'s)					
Salaries and Wages	188	245	269	307	372
Travel Expense	40	50	50	53	57
Telephone, Telegraph	3	4	4	4	N/A
Other	11	15	11	15	25
<u>Total</u>	242	314	334	379	454

<u>Information Branch</u>	104	137	146	169	294
---------------------------	-----	-----	-----	-----	-----

Fairs, Exhibition Assistance, et cetera	18	29	27	19	27
--------------------------------------------	----	----	----	----	----

<u>Approximation of Total Annual Operating Costs for Extension & Colleges Division</u>	1,467	1,680	1,839	2,096	2,378
------------------------------------------------------------------------------------------------	-------	-------	-------	-------	-------

	1966- 67	1967- 68	1968- 69	1969- 70	1970- 71
	(A)	(C)	(U)	(1)	(Estimated)

FARM ECONOMICS BRANCH^{2/}

Salaries and Wages	230	311	315	318	411
Travel Expense	30	33	32	32	33
Telephone, Telegraph	1	1	2	3	N/A
Other	<u>33</u>	<u>41</u>	<u>42</u>	<u>100</u>	<u>103</u>
Total	<u>294</u>	<u>386</u>	<u>391</u>	<u>453</u>	<u>547</u>

Marketing of Agricultural Products

	28	31	39	43	54
--	----	----	----	----	----

EXTENSION WORK DONE IN OTHER

A.D.A. DIVISIONS^{3/} (estimated)

Veterinary Service	15%			124	155
Animal Industry	30%			398	435
Plant Industry	25%			721	846
Program Development	15%			595	504
Water Resources	10%			<u>78</u>	<u>89</u>
Total				<u>1,916</u>	<u>2,029</u>

TOTAL ANNUAL OPERATION COST
OF EXTENSION EX. AGRICULTURAL
& VOCATIONAL COLLEGES

	<u>4,508</u>	<u>5,008</u>
--	---------------------	---------------------

(% of Total A.D.A. Annual
Operating Cost)

	(29)	(30)
--	------	------

AGRICULTURAL & VOCATIONAL
COLLEGES^{4/}

Head Office	34	54	61	56	N/A
Olds	585	549	761	865	997
Vermilion	570	463	532	612	716
Fairview	<u>441</u>	<u>386</u>	<u>405</u>	<u>450</u>	<u>474</u>
Total	<u>1,630</u>	<u>1,452</u>	<u>1,759</u>	<u>1,983</u>	<u>2,187</u>

TOTAL ANNUAL OPERATING COST
OF EXTENSION INCL. AGRI-
CULTURAL & VOCATIONAL
COLLEGES

	<u>6,491</u>	<u>7,195</u>
--	---------------------	---------------------

(% of Total A.D.A. Annual
Operating Cost)

	(42)	(43)
--	------	------

TOTAL ANNUAL OPERATING
COST OF A.D.A.

	10,693	9,641	12,839	15,623	16,626
--	--------	-------	--------	--------	--------

N/A: not published

1/ Old titles have not been changed in the Public Accounts

2/ Actually now a separate Division

3/ Estimated for only the two recent budget years.

4/ Actually part of Extension & Colleges Division but we
look upon them as a separate matter.

Because of lack of comparability among years, and avoiding use of 1970-71 estimates, the critical budget year for comparison of the annual operating cost of present operations with the magnitude of our annual operating costs for the Extension Triumvirate is 1969-70. The key figures for use in the comparison taken from this budget year are:

1969-70
(Actual Rounded)

TOTAL ANNUAL OPERATING COST OF EXTENSION <u>EXCLUDING</u> AGRICULTURAL & VOCATIONAL COLLEGES	\$ 4,508,000
(% of Total A.D.A. Annual Operating Cost)	(29)
TOTAL ANNUAL OPERATING COST OF A.D.A.	\$15,623,000
TOTAL ANNUAL OPERATING COST OF AGRI- CULTURAL & VOCATIONAL COLLEGES	\$ 1,983,000

The Agricultural & Vocational Colleges do not carry on much extension at present. They are involved in formal education programs. Thus in considering the key extension operating cost figures for 1969-70, we have set them aside.

(b) Increase in Annual Operating Cost of A.D.A. Extension

<u>Alberta Data Bank (Computerized Basis)</u>	\$ 222,000
<u>Extension Communications Group</u>	
TV Productions Lab	\$280,000
Audio " "	83,000
Audio-Visual Aids Lab	131,000
Group Management	<u>30,000</u> 524,000
<u>Use of Alberta Extension Centres*</u>	<u>375,000</u>
	<u><u>\$ 1,121,000</u></u>

*NOTE: The A.D.A. is assumed to use 50 per cent of the extension centres' course capacity. Use will involve upgrading courses for 'emerging' farm units. There will also be awareness courses for commercial farm units regarding use of the A.D.B., E.C.G. and the A.E.C.

This increase represents 25 per cent of the 1969-70 annual operating costs of extension in the A.D.A. and 7 per cent of the total annual operating costs of the A.D.A. for that same time period. NOTE THAT NO REVENUE IS CONSIDERED. YET THE A.D.B., E.C.G. AND A.E.C. WILL CHARGE FOR SERVICES RENDERED, TO BE AT LEAST SELF-SUSTAINING.

(c) Decrease in Annual Operating Cost of A.D.A. Extension due to Transfer out of Agricultural and Vocational Colleges (1969-70 figure basis)

<u>Olds:</u> transfer of cost to Red Deer College due to broader use of Olds as part of the formal education facilities for the Red Deer 'education region.'	\$ 865,000
<u>Vermilion:</u> conversion to a 'community college' and thus a transfer of cost out of the A.D.A.	612,000
<u>Fairview:</u> transfer of cost to 'autonomous' operation as an 'agricultural college' due to the nature of the Region.	450,000
<u>A.D.A. Headquarters:</u>	<u>56,000</u>
	<u><u>\$1,983,000</u></u>

Education should be integrated throughout the Province and agricultural education should be no exception. In Chapter 6, and more particularly Chart 6-6, we indicate that the Colleges be phased out of the A.D.A. They would then come under the jurisdiction of the Alberta Colleges Commission.

If all of the Agricultural and Vocational Colleges operating budget is removed from the A.D.A., the cost saving is \$1,983,000.

(d) Decrease in Annual Operating Cost of A.D.A. Extension

Add:

Alberta Data Bank	\$ 222,000
Extension Communications Group	524,000
Use of Alberta Extension Centres	<u>375,000</u>
	\$1,121,000

Deduct:

Transfer of Agricultural and Vocational Colleges	<u>\$1,983,000</u>
--------------------------------------------------	--------------------

<u>Decrease</u>	<u>\$ 862,000</u>
-----------------	-------------------

(e) Capital Cost of Extension Triumvirate

The only capital cost involves the Extension Communications Group and amounts to \$196,000. This would be an A.D.A. outlay unless contracted out. In the latter case the outlay would be reflected in fees charged by the contractor for use of facilities.

2. REVENUE

(a) Increase in Annual Operating Revenue of A.D.A. Extension

User fees for A.D.B.	\$ 208,000
User fees for E.C.G.	<u>262,000</u>
	<u>\$ 470,000</u>

(b) Increase in Alberta Government Revenue

User fees for A.D.B.	\$ 208,000
User fees for E.C.G.	262,000
User fees for A.E.C.	<u>375,000</u>
	<u>\$ 845,000</u>

To the extent that part of this \$845,000 comes from other government departments, the actual increase in Alberta Government revenue may not be the full \$845,000.

(c) Net Addition to Alberta Government Expenditure

Cost of Extension Triumvirate	\$1,121,000
Revenue from its use by 'paying customers'	<u>845,000</u>
Net addition	<u>\$ 276,000</u>

3. TIMING

Chart 10-1 pulls together all of our study recommendations -- A.D.A., universities and colleges, farm organizations, and agri-business into a total perspective with timing as the common factor. The Chart is self-explanatory.

CHART 10-1 (A)

Time Scale for Implementation of Study Recommendations

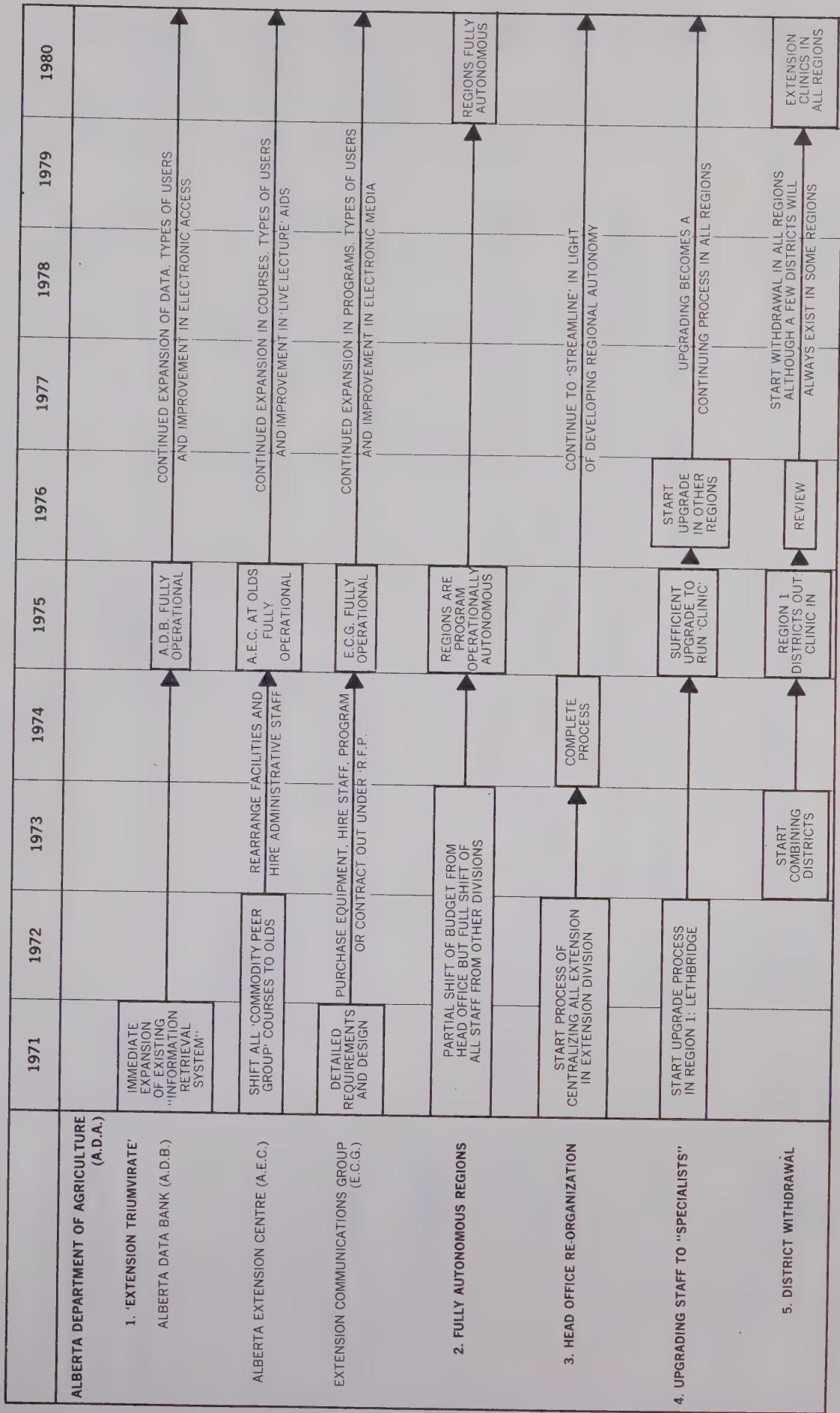


CHART 10 - 1 (B)

Time Scale for Implementation of Study Recommendations

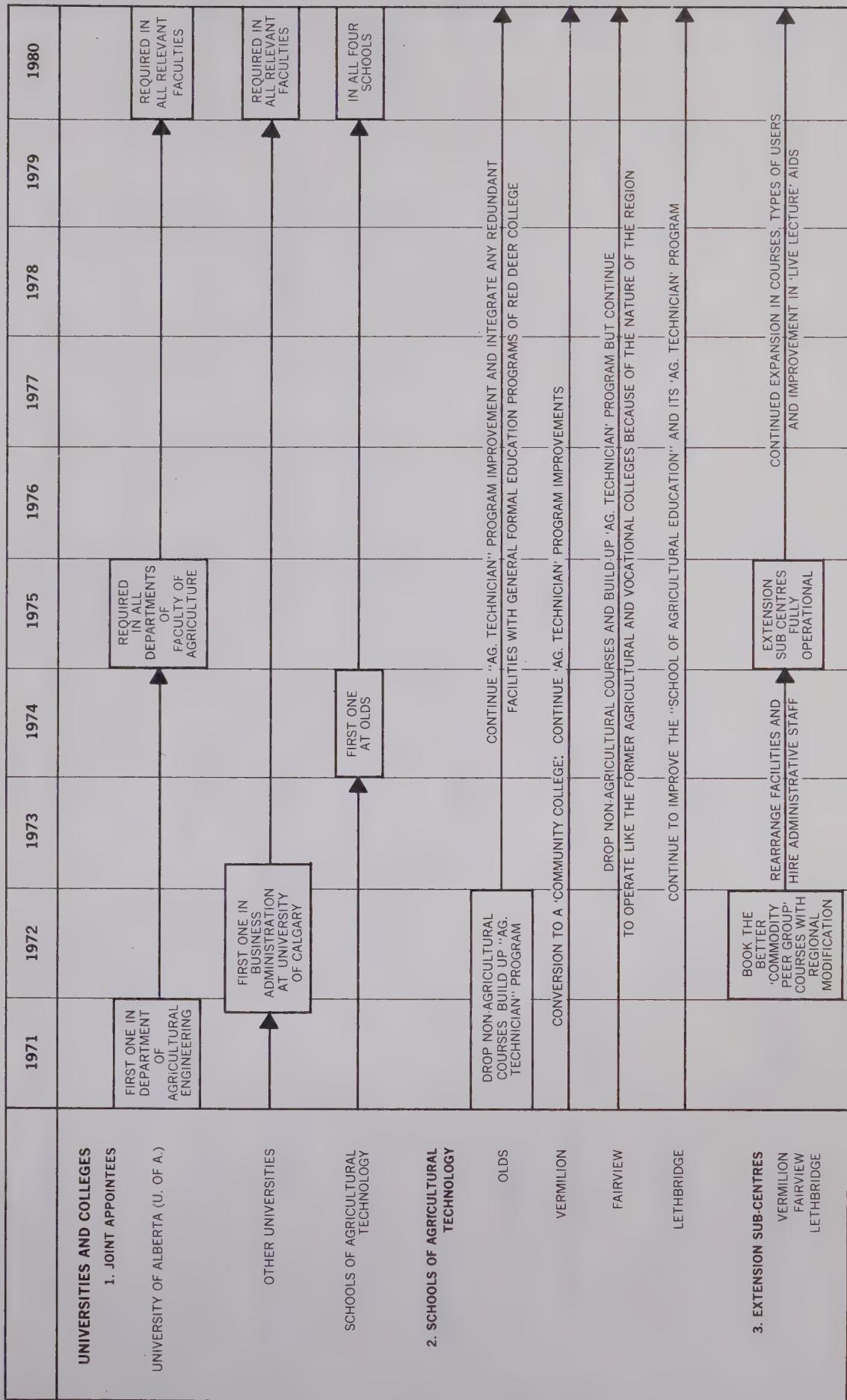
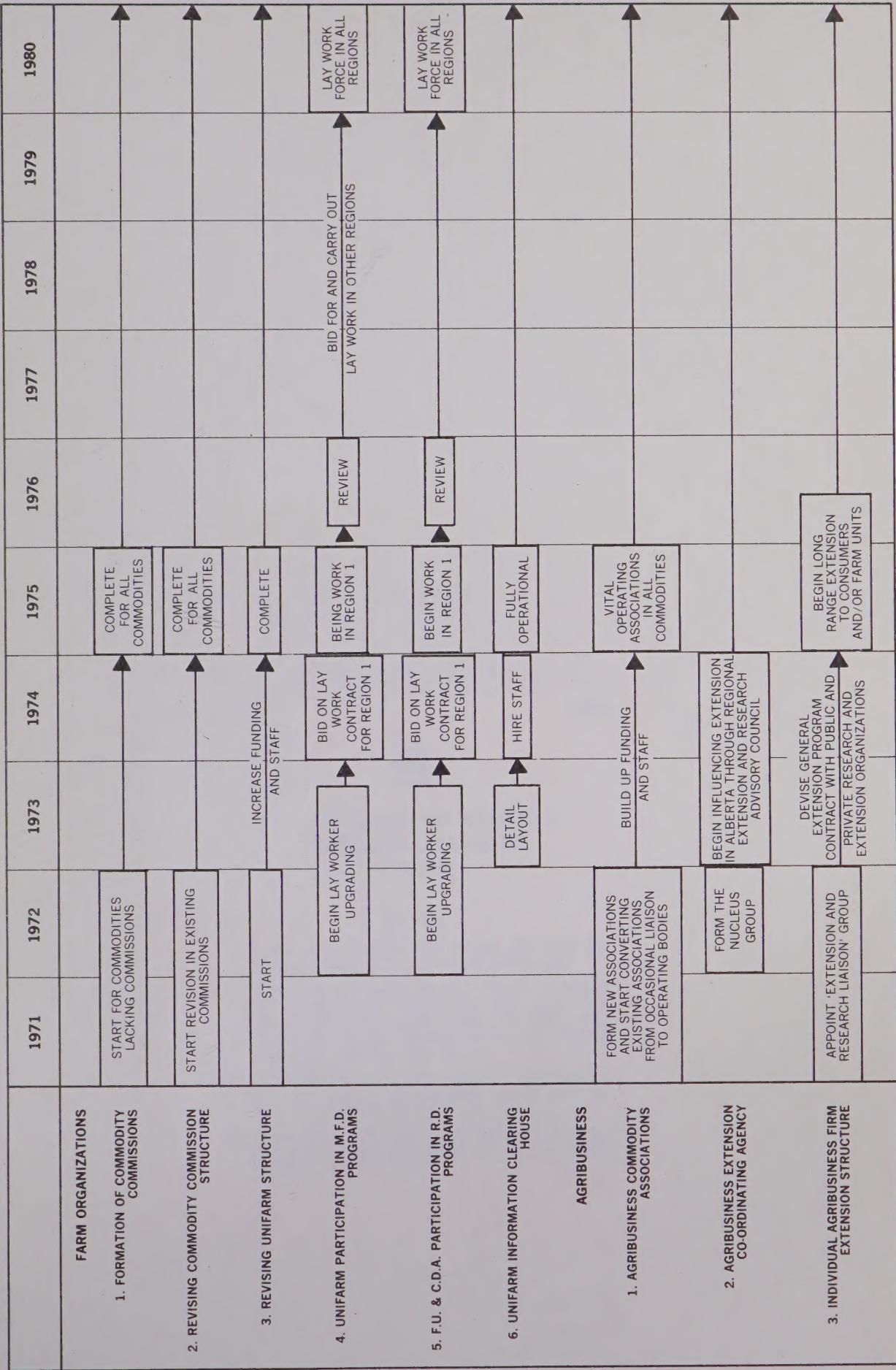


CHART 10 - 1 (C)

Time Scale for Implementation of Study Recommendations



Farm and Ranch Management
Consultants Ltd.

Tradition and transition.



VERNMENT OF ALBERTA
ROVINCIAL LIBRARY
Edmonton

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1. Books may be kept two weeks and may be renewed once, if not already reserved.
2. A fine of two cents a day will be charged on each book which is not returned according to the above rule. No book will be issued to any person incurring such a fine until it has been paid.
3. All injuries to books beyond reasonable wear and all losses should be made good to the satisfaction of the Librarian.
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